

**STOP
THE PRESSES**

Amiga 4000s will be built again!

Amazing / AMIGA

COMPUTING™

Volume 13 No. 11 November 1998
US \$3.95 Canada \$5.95

Your Original AMIGA® Monthly Resource

Amiga OS 3.5

What Will You Need?

What Will It Have?

When Will It Be Here?

Midwest Amiga Expo

BEST BETS!

**Connecting to
the Internet!**

**AMIGA
ON
BOARD**

Amiga Audio

Creating better original samples.

PLUS!: Unix, Aladdin4D, JavaScript,
PC Game Ports,
LightWave 3D tutorial
and more!

User Group Network
Events Coordinator,
Bill Borsari, directing
a live IRC at MAE.



Speed It Up!
Add zip to your clip art.



IL 600



AMIGA SURVIVAL KIT



LET'S FACE IT, AMIGA SERVICE CENTERS AND AMIGA PARTS ARE GETTING MORE DIFFICULT TO FIND TO KEEP YOUR AMIGA RUNNING.

Protect your investment now with the AMIGA SURVIVAL KIT from Paxtron. Each kit for the A500, A1200, A2000, A3000, A4000 and c64 contains the popular easy to install replacement chips to allow your computer extended life for years and years. Each kit corrects 90% of all Amiga failures, which include up to 28 symptoms. Replacement chips are of the "plug-in" type (unless otherwise noted) and contain instructions allowing anyone with a little knowledge and a screwdriver to get their computer up and running in most cases. (A4000 kit being worked on.)

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All Amigas
Check out our Web Page (www.paxtron.com) for prices for all these items plus thousands more.

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Jeffrey A1200-16 megs, Viper 520 CD/8 megs
KEYBOARDS
A1200, A2000, A3000 and A4000
ADD ON BOARDS
A3640 Processor board, A3000 daughter board

MOUSE CONTROLLERS
Wizard 3 button
Amiga Technology
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Troubleshooting guides
Service Manuals

AMERICA'S ONLY AUTHORIZED REPAIR CENTER

GO TO THE SOURCE - Most Amiga Dealers send their Amiga to Paxtron for repair. You too can save time and money and go directly to us. Paxtron has the resources and the technical people to keep your Amiga running for years and years. Our prices are more than fair and we just recently added a second (SMT) Surface Mount Station to our repair department. Our replacement parts and components are new and our technicians were originally trained by Commodore. In July of 1997, Paxtron was appointed a direct authorized Amiga repair center by Amiga International and officially listed on their web page as such.

Want to talk to a technician before you send in your computer? The tech lines are open 2-4pm EST Monday - Friday.

If you want to take advantage of our rapid turnaround and low repair costs, give us a call on our toll free number 800-595-5334. Our service department will give you an RMA (Return Authorization Number) and instructions for sending in your equipment.

MODEL	COST FOR BOARD ALONE	COST FOR WHOLE COMPUTER	MODEL	COST FOR BOARD ALONE	COST FOR WHOLE COMPUTER
C64	\$30.00 flat Rate	\$35.00 flat rate	A1200	\$100.00 plus parts	\$130.00 plus parts
A500	\$50.00 plus parts	\$55.00 plus parts	A4000	\$189.00 plus parts	\$199.00 plus parts
A2000	\$110.00 plus parts	\$125.00 plus parts	A4000 Tower	\$189.00 plus parts	\$219.00 plus parts
A3000	\$165.00 plus parts	\$189.00 plus parts	CD32	\$85.00 plus parts	\$95.00 plus parts
A3000 Tower	\$165.00 plus parts	\$199.00 plus parts	CDTV	\$85.00 plus parts	\$95.00 plus parts
A2000,3,4 Keyboard	\$35.00 flat rate				

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Look on our web page (www.paxtron.com) for a complete listing of all the repairs we do.

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CYBERSTORM PPC w/200MHz PowerPC 604e, with 68060/50 CPU.....	\$999.00
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BLIZZARD 603e PPC w/200MHz with 68040/25 CPU with SCSI.....	\$541.00
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Check out our Web Page for latest pricing on Phase 5 Accelerators

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(See our web page for a complete list of Micronik products - www.paxtron.com)

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Turbo 630 68030/33 MHz (A600).....	\$169.00
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Turbo 1240 68040/33MHz, SCSI optional.....	\$254.50
Turbo 1240 68040/50MHz, SCSI optional.....	\$279.50
Turbo 1260 68060/50MHz, SCSI optional.....	\$429.50
A1200 SCSI module for above units.....	\$78.50
Apollo 2030 68030/25 MHz/882/SCSI-2.....	\$177.50
Apollo 2030 68030/50 MHz/882/SCSI-2.....	\$209.00
Apollo 3040/4040 68040/40 MHz/SCSI 2, up to 128MB.....	\$334.00
Apollo 3060/4060 68060/50 MHz/SCSI 2, up to 128 MB.....	\$519.50
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- 3.1 Operating System (with diskettes)
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- A500 Service Manual
- 90 day warranty

\$169.00 plus shipping

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2 x 32-60 ns SIMM, 8 Meg.....	\$19.60
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8 x 32-60ns SIMM - 32 Meg.....	\$49.95

16 x 32-60ns SIMM - 64 meg.....	\$143.00
4 x 8-60ns SIMM.....	\$19.95
4 x 8-70ns SIMM.....	\$18.80
4 x 9-70ns SIMM.....	\$19.95
GVP 32-bit 4 meg SIMM A530 Turbo.....	\$44.50
GVP 32-bit 16 meg SIMM A530 Turbo.....	\$108.50
2 meg SIMM for A4000 - Chip RAM.....	\$23.75
WD-SCSI-(8A) SCSI Upgrade.....	\$23.95
Amifast Zip to Simm adapter for A3000.....	\$69.95

SEE OUR WEB PAGE FOR A COMPLETE LISTING - www.paxtron.com



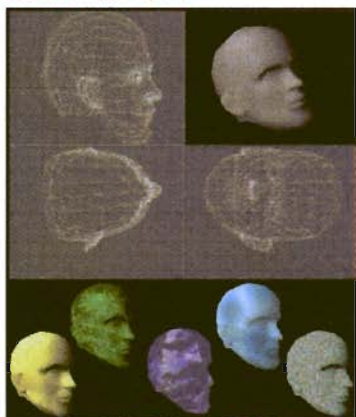
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Amazing / AMIGA COMPUTING

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A4000 Towers Made In Germany

New Products, P.9



LightWave 3D Tutorial, P.14



SPEED IT UP!, P.18



PC Ports, P.36



Legacy at MAE, P.40

9 New Products

& other neat stuff

Amiga 4000 to be built in Germany, REBOL now available for download, a new Amiga dealer, and more!

12 Amiga OS3.5

Amiga Inc.'s MAE announcement.

14 From the One, Many

by R. Shamms Mortier

Create a series of 3D creatures heads from one basic model with LightWave 3D.

18 SPEED IT UP!

by Nick Cook

Add zip to your clip art. Rev up your images with tricks from ImageFX.



20 Aladdin 4D

Cutting Torch Animation Project

by Dave Matthews

Part 4: It's time to add grit to our model and create a look of wear and tear.

26 On Line

by Rob Hays

JavaScript can deliver a history of activity and Miami has been updated to version 3.0d to fix some user lock up problems.

28 This Old Workbench: Episode 23: Corrections and Refinements

by Dave Matthews

This is a short detour to correct a few sharp turns and return us to our goal - the perfect workbench.

32 Unix on the Amiga

by Antonello De Santis

Part 6: System administration: privileges and security, managing hard drive space and more.

36 PC Ports

by Jake Frederick

The Amiga gaming scene has improved with an array of games whose coding has been ported to the Amiga.

MAE



40 Midwest Amiga Expo

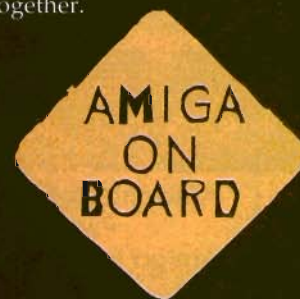
This Amicon event has expanded consistently and surprisingly over the past two years. See who was there!



30 Amiga Audio

by Roger Angus

Looking beyond recording on the Amiga to microphone placement, mixing techniques, and how to take a Soundcraft desk apart and put it back together.



48 Internet Bargains

We asked a group of retailers and mail order advertisers to show us their best deal to connect your Amiga to the Internet. See what they offered in their own words!

DEPARTMENTS

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AMIGA



Community Bulletin Board

Amiga Users , don't miss these important events!

November 13, 14, & 15

COMPUTER '98

Cologne, Germany Exhibition Grounds Halls 11 + 12
+49/234/946 88-0, FAX: +49/234/946 88-44
www.computer98.de



March 12, 13, & 14

AMIGA 99

The Gateway Computer Show
St. Louis, Missouri, Henry VIII Hotel
www.amiga-stl.com

World Of Amiga London, 1999

Date and venue announced, keep watching their site at: www.fortunecity.com/tattooine/carpenter/241/woa99.htm

**Keep these sites bookmarked
for special events**

Amazing Computing/Amiga
www.pimpub.com

Amiga Inc.
www.amiga.com

Amiga International
www.amiga.de

Amiga User Group Network
www.amiga.org

Amiga Web Directory
www.cucug.org/atnews.html

Don't forget your user groups!

Please visit the representatives from the **User Group Network**, **Team Amiga**, and the **Jay Miner Society**.

They are there to help and bring the Amiga Community together.

powered by  **AMIGA**

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Calgary, Alberta T2T 4T9
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Fax: 403-243-2684
WWW: www.canuck.com/cshop
austin@canuck.com

Forest Diskasaurus

35 Albert St., P.O.Box 84
Forest, Ontario N0N 1J0
Tel/Fax: 519-786-2454
saurus@xcelco.on.ca

GfxBase Electronique, Inc

1727 Shevchenko
Montreal, Quebec
Voice: 514-367-2575
Fax: 514-367-5265
BBS: 514-769-0565

Oshawa Amiga

Oshawa, ON L1J 5J8
Phone: 905-728-7048
WWW: web.idirect.com/~oshamiga
mjacula@idirect.com

Randomize Computers

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Tottenham, Ont. L0G 1W0
vox: 905-939-8371
fax: 905-939-8745
WWW: www.randomize.com
randomize@interlog.com

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P.O. Box 864
Pembroke, Ontario K8A 7M5
Voice: 613-732-7700
Fax: 613-732-8477
WWW: www.renc.igs.net/~valsoft

Video Link

53 Lucy Avenue
Toronto, Ontario M1L 1A1
Voice: 416-690-1690
Voice: 800-567-8481
WWW: www.videolink.ca

Wonder Computers**Ottawa Retail Store**

1315 Richmond Road
Ottawa, Ontario K2B 8J7
Voice: 613-721-1800
Fax: 613-721-6992
WWW: www.wonder.ca

Wonder Computers**Vancouver Sales Office**

2229 Edinburgh St.
New Westminster, BC W3M 2Y2
Voice: 604-524-2151

--UNITED STATES--

A D A Computers

11770 Stucki Road
Elberta, AL 36530
Voice: 334-986-8428
(opening November 14th)

A V Solutions, Inc.

6419c Lyndale Ave. South
Minneapolis, MN 55423
Voice: 612-861-4686
www.avs-inc.com/~avs
sales@avs-inc.com

Alex Electronics

597 Circlewood Dr.
Paradise, CA 95969
Voice/Fax: 916-872-3722
BBS: 915-872-3711
WWW: www.wordbench.com/
alex@wordbench.com

Amiga-Crossing

PO Box 12A
Cumberland Center, ME 04021
Voice: 800-498-3959 (Maine only)
Voice: 207-829-3959
Fax: 207-829-3522
amiga-x@tka.com

Amiga Exchange

P.O.Box 1381
Manhattan Beach, CA 90266
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BBS: 310-325-1796
robertwt@ix.netcom.com

AntiGravity

1649 16th Street
Santa Monica, CA 90404
Voice: 310-399-8785

Applied Multimedia Inc.

89 Northhill St.
Stamford, CT 06907
Voice: (203) 348-0108

Apogee Technologies

1851 University Parkway
Sarasota, FL 34243
Voice: 813-355-6121
Apogee@cup.portal.com

Armado Brothers

4379 South State
Salt Lake City, Utah 84107
Voice: 801-262-4454
Fax: 801-262-4441
WWW: www.armadilobrothers.com
brent@armos.com

Computer Advantage

6996 NW 15 Court
Johnston, IA 50131
Voice/Fax: 515-986-8294
Number1@netins.net

Computer Concepts

18001 Bothell-Everett Hwy, Suite "0"
Bothell, WA 98012
Voice: (206) 481-3666

Computer Link

6573 middlebelt
Garden City MI 48135
Voice: 313-522-6005
Fax: 313-522-3119
clink@m-net.arbomet.org

The Computer Room

2760 South Havana Street
Aurora, Colorado 80014
Voice: 303-696-8973
WWW: www.computerroom.com
Email: sales@computerroom.com

The Computer Source

515 Kings Hwy East
Fairfield, CT 06432
Voice: 203-336-3100
Fax: 203-336-3259

Computerwise Computers

3006 North Main
Logan, UT 84322

CPU Inc.

5168 East 65th St.
Indianapolis, IN 46220
Voice: 317-577-3677
Fax: 317-577-1500
cpuken@indy.net

CyberTech Labs

P.O.Box 56941
North Pole, Alaska 99705
Voice: 907-451-3285
BBS1: 907-488-2547
BBS2 & Fax: 907-488-2647

DC Productions

218 Stockbridge Avenue
Kalamazoo, MI 49001
(616)373-1985 (800)9DC-PROD
dcprolchetw@heifetz.msen.com

Digital Arts

1321 North Walnut
P.O. Box 5206
Bloomington, IN 47404
Voice: (812)330-0124
Fax: (812)330-0126
BIX: msears

Discount Computer Sales

1100 Sunset Strip #5
Sunrise, FL 33313
Voice: 954-797-9402
Fax: 954-797-2999
DCS@aol.net
DCS@interpoint.net

Electronic Connection

635 Penn Ave
West Reading, PA 19611
Phone: 610-372-1010
Fax: 610-378-0996

The Great Escape

9227 Montgomery
Spokane, WA 99206
Voice: 509-928-4244
FAX: 509-928-4244

Hawkeye Communication

1324 Fifth Street
Coralville, Iowa 52241
Voice: 319-354-3354
Hawkcom@inav.net

HHH Enterprises

Contact: Tom Harmon
PO Box 10
Hartwood, VA 22471
Voice: (540) 752-2100
ko4ox@erols.com

HT Electronics

211 Lathrop Way, Ste. A.
Sacramento, CA 95815
V: (916) 925-0900
F: (916) 925-2829
BIX: msears

HT Electronics

1612 Washington Blvd
Fremont, CA 94539
Voice: 510-438-6556
BIX: msears

Industrial Video, Inc.

Contact: John Gray
1601 North Ridge Rd.
Lorain, OH 44055
800-362-6150, 216-233-4000
a741@cleveland.freenet.edu

JW's Lil Shoppe

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Walla Walla WA 99362
Voice: 509-525-5582
Fax: 509-522-4243
BBS: 509-522-8485
jolson@wwics.com

Kipp Visual Systems

360-C Christopher Ave
Gaithersburg, MD 20878
Voice: 301-670-7906
kipp@rasputin.umd.edu

The Lively Computer - Tom Lively

8314 Parkway Dr.
La Mesa, CA 91942
Voice: 619-589-9455
Fax: 619-589-5230
tlively@connectnet.com

Magic Page

Contact: Patrick Smith
3043 Luther Street
Winston-Salem, NC 27127
Voice/Fax: 336-785-3695
tracarb@sprintmail.com

MicroSearch

9000 US 59 South, Suite 330
Houston, Texas
Voice: 713-988-2818
Fax: 713-995-4994

MicroTech Solutions, Inc.

17W745 Butterfield Road, Suite F
Oakbrook Terrace, IL 60181
Phone: 630-495-4069
Fax: 630-495-4245
WWW: www.mt-inc.com
info@mt-inc.com

Mr. Hardware Computers

P.O. Box 148 / 59 Storey Ave.
Central Islip, NY 11722
Voice: 516-234-8110
Fax: 516-234-8110
A.M.U.G. BBS: 516-234-6046
WWW: www.li.net/~hardware
hardware@li.net

Multimedia Network Consultants

Bellamah N.E.
Albuquerque, NM 87111
Voice: 505-299-3767
WWW: www.netcom.com/~hitscom
hitscom@ix.netcom.com

Raymond Commodore Amiga

795 Raymond Avenue
St. Paul, MN 55114-1521
Voice: 612-642-9890
Fax: 612-642-9891
BBS: 612-874-8342
WWW: www.visi.com/~raycomp
raycomp@visi.com

Safe Harbor Computers

W226 N900 Eastmound Dr
Waukesha, WI 53186
Orders: 800-544-6599
Fax: 414-548-8130
WWW: www.sharbor.com

Slipped Disk

170 E 12 Mile Rd
Madison Heights, Michigan 48071
Voice: (810) 546-DISK
BBS: (810) 399-1292

Software Plus Chicago

Suite 209
2945 W Peterson
Chicago, IL
Voice: 312-876-7800

System Eyes Computer Store

730M Milford Rd Ste 345
Merrimack, NH 03054-4642
Voice: (603) 4244-1188
Fax: (603) 424-3939
j_sauter@systemeye.ultranet.com

TJ's Unlimited

P.O. Box #354
North Greece, NY 14515-0354
Voice: 716-225-5810
BBS: 716-225-8631
neil@rochgte.fidonet.org

TS Computers

11300 Hartland
North Hollywood, CA 91605
Voice: 818-760-4445
FAX: 818-505-1811

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36 Mill Plain Road, Ste 410
Danbury, CT 06811-5114
Voice: 203-744-0100
Voice: 800-411-3332
videology@snet.net

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Please send any corrections,
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Fall River, MA 02720
FAX: 508 675 6002
JoyceHicks@aol.com

Editorial Content

Uh, what happened to the color?

For the first time in almost four years, we are late. For the first time in eleven years, almost all of the contents of *Amazing Computing/Amiga* is now in black and white. Why? Change.

While we have maintained some color, black and white rules this magazine. However, some people will need to see the full color images. To ease this problem, we are placing all of the pictures from this issue on our web site at www.pimpub.com. This way, no matter how well the pictures appear in the printed copy, you will also have the option of seeing them in color.

The change to black and white is a reflection of the current state of the Amiga market. A color magazine maintains its presence (as well as its color) by the level of advertising available in the marketplace. Since the demise of QuikPak and the rise of the A4000 shortage, the amount of color advertising has dropped dramatically. There are only four pages of color advertisements in this issue. This isn't because advertisers feel the world no longer needs that extra shot of adrenaline color offers. It is the result of a declining Amiga market.

In our current Amiga market, everyone is waiting for something to happen. Some are waiting to see what Amiga Inc. will do, but most are waiting because they haven't seen a compelling reason, either by its abilities or its price, to buy an Amiga product.

The slow market was the central reason almost 80% of our advertisers (color and B&W) were over a week and a half late for this issue. While we may have worked around two or even three late submissions,

the total was too much and it forced us to miss our print date with our regular printer. This caused us to reexamine how we were producing and distributing *Amazing Computing/Amiga*.

Commitment

Recently we reported the departure of *CU Amiga*. As they left, they posted a letter to their subscribers listing the reasons for their closure and their hopes for the market in the future on their web site. With respect to CU and its staff, I found two items interesting. First, they did not want to produce the magazine in a lower or substandard format and second they were unwilling to take any pay cut (and asked if any user would in their place).

As far as changing the magazine, I believe you must do what is necessary to continue to provide your readers information. More than once, we have demonstrated our willingness to alter our methods to achieve this goal. This doesn't mean you create junk, but it does mean you utilize the tools you have available to the best of your abilities.

Their second point on compensation was also interesting. Our authors have been writing for over four years without pay. No one in our offices has seen a raise in six years. In fact, many of us have cut our pays and significantly increased our workload to keep the magazine functioning and no one has had an honest-to-goodness vacation for as long as I can remember. We have done this because we enjoy what we do, however, there are limits.

While costs have continued to increase in printing, paper, postage, and just about every other expense for our business over the past ten years, we have continued to charge the same subscription rate, the same cover price, and we have even lowered advertising costs.

We have done all of this while maintaining a national and even an international newsstand distribution. Yet, publishing a newsstand publication still requires expenses in additional copies, freight, and even positioning fees to store chains. However, we believed it was important to maintain the Amiga's presence in as many venues as possible.

Changing Horses

We applied an audit of our current printing and distribution to our current advertising revenue as well as additional sales and came to the decision that we had to alter our production. Since our printer was a specialist in color output and highly

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Circle 126 on Reader Service card.

efficient, it was difficult to reduce costs through them. This meant finding another printer with the ability to produce a color or black and white AC.

Our search brought us to a nearby source who could handle the job but worked on a slightly smaller press. We had to redesign the entire magazine for black and white and for the new press size. It also meant realigning our dates with available press time. The result is an issue currently running over four weeks late (and it could slip more) but the ability to change systems won out.

Why Bother?

I know any rational business person would need to ask, "Why bother? With a market in a valley (see Jeff Schindler's speech from the Amiga 98 in AC's May issue), what are the possibilities of payoff?" I agree they are questionable but, I also see where Amiga Inc. is headed and, although I would probably have developed different priorities, I believe their ultimate goal is an important one.

When we started AC in the fall of 1985, we knew that the Amiga was a gamble. However, it had features and potential which exceeded anything else in the computer arena. We understood its capabilities and the possibilities these presented.

Even with the little information available from Amiga Inc., I believe the AmigaNG (Next Generation) has the potential to address the problems and possibilities of the next level of computing. Either through embedded systems or by direct applications, the AmigaNG offers more to the consumer than we are seeing developed in the other fields.

Recently Apple Computer poured \$50 million into an ad campaign for the iMAC. They sold a lot of iMACs. However, in a recent trip to CompUSA, I saw a sign taped to every counter which stated no Apple iMACs would be accepted for return unless D.O.A. (Dead On Arrival). This must sponsor a lot of trust in an initial iMAC customer.

While iMAC has been both a success and a failure, it has also reaffirmed the belief that people want an alternative system. They want an easy answer to the difficult question of accessing the internet and they are not ready to accept web TVs captive audience philosophy. An updated, memory conservative Amiga with improved software and GUI could easily fill this void.

What do we do now?

The next six to eighteen months will be critical. We must maintain our market. We must be creative and utilize all of our tools. This is why we asked retailers to send in what they would suggest for an Amiga internet add-on. The results are on page 44. It is also why we are looking squarely at the internet to maintain and increase exposure.

More Web Access Options

Through a partnership with a new company, we are working on the following possibilities.

1. While the pages of AC are black and white, you can currently find every picture in full color on our web site at www.pimpub.com.
2. The Reader Service Card is gone. Every ad is also available on our site as well as links to the advertiser directly (if available) or you can still phone them from their numbers in the issue.
3. *Amazing Computing/Amiga* will be testing the possibility of electronic distribution (complete with ads) through the internet. These may be in HTML format, text, or even PDF files (please see the article "Reading PDF and postscript files" by Dr. Michael Tobin, MD, PhD in the February, 1998 issue). When perfected, this feature will be available to all subscribers (check your current label for your password).
4. We will also test AC's *GUIDE* information to place this on the internet for subscribers.
5. Distribution of *Amazing Computing/Amiga* will be more carefully monitored (to reduce waste and lower advertising costs).
6. A new ad rate structure will be developed to help advertisers take advantage of a variety of opportunities.
7. Subscription and other activity will be moved to our web site to better assist our customers and provide improved automation.

The most effective way to cope with change is to help create it.

L. W. Lynett

Things You Can Do

Recently, a reader wrote me and complemented *Amazing* for once again including a hardware article. We never stopped including them. We have printed almost everyone that we have received. Authors have stopped contributing them.

Amazing Computing/Amiga has always been an open forum for information and ideas on the Amiga market. We have been fortunate to attract authors from around the world to contribute to the pages of *Amazing*. However, we need more. If you have an idea or an article, please contact us. If you have contributed, but heard nothing, contact us again.

Also, while AC will be working diligently on each issue over the next several months, we realize the issue dates will look delayed. Just remember, the news is as fresh as we can get it to you.

AC's GUIDE

The declining interest in the market has also effected AC's *GUIDE*. We have been hurt not only by QuikPak's absence in the development of AC's *GUIDE* (they were underwriting the CD-ROM so they could contribute software), but the main market has turned silent. This has made it increasingly difficult to get the answers we need. This is why we are planning to utilize the internet to both obtain and disseminate Guide information.

You can help too by getting developers to contribute. Watch our web page for more information.

Our Task

We made a commitment to stay in the Amiga market as long as there was a market. I constantly remind people that we can only be here as long as the market supports AC and our advertisers. This is a family business and we have reinvested every dime this company has made back into the Amiga market. However, no matter how well intentioned, we are only as good as you make us. Your support and contribution are essential to our goals.

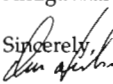
It is in your hands

As I prepared this letter, I was faced with the task of telling you the current status of the market without completely discouraging you. I was also charged with offering you our best thoughts on continuing this market's presence and hopefully bringing you on board. I hope I have encouraged you to participate.

No Amiga dealer, Amiga developer, distributor, or even *Amazing* has the capacity or the will to persevere in these times alone. Your contribution and participation are important. This doesn't mean we want you to buy things just to keep people in business, it means we want you to use your Amigas and discover new possibilities. I believe your enthusiasm will generate its own activity.

I hope that the direction and possibilities I have outlined will inspire each of you to contribute and assist us in our wider goal. As for the AC team, we have worked longer than any other publication in the world and, with the exception of NewTek, any other Amiga vendor to keep Amiga information and products flowing.

We will continue to evaluate the market and reinvent ourselves and our methods. However, nothing can continue without your support and an Amiga market willing to address your needs. While we are certain there can be an Amiga market without *Amazing*, we know there can be no *Amazing Computing/Amiga* without an Amiga market.

Sincerely,

Don Hicks
Managing Editor

FEEDBACK

Is Shareware Worth It?

Dear AC,

I'm writing to tell you all that you put out a very fine publication. Keep up the good work!

About a year ago I sent away for the full-registered version of Magic Workbench. I sent a money order for \$20.00 to Superior Consulting, P. O. Box 984, Gloversville, NY 12078, for the shareware fee in October 1997. I waited and waited. Nothing! I went back to the post office to see if the money had been cashed and tried to get my money back. The money order was not cashed and the post office issued me a new money order that I cashed. About 2 months later (Mar. '98) I got a notice from the U.S. Postal Service that the first money order had been cashed and that I owed the \$20.00 back to them. I still received nothing from Superior Consulting. I sent Superior a letter to see what the problem was. About a couple of months later I still received nothing. Not even a response! On Aug 22, 1998 I sent Superior a certified letter explaining to them how unhappy I was with the whole thing. To this date NOTHING!!!

Superior Consulting is the U.S. SASG site for registering certain shareware, I.E. Magic Workbench, MUI, and so on. I hope you can let other Amiga folks know about this problem so others don't get ripped off like I did. I'll probably never try to register shareware again. Users are asked to support the Amiga, support shareware and this is how we are treated! You get ripped off for your troubles.

Thanks for reading my ranting and ravings.

Sincerely,
Joseph W. Solinski
Elgin IL

We will pass along this report of your irritation with the process. While there is no excuse for this (especially since you sent them letters on the problem), I feel your broad statement concerning registering shareware is a bit overkill.

Shareware is a vital part of the Amiga's growth in the past and even more importantly now and in the future. Most software products would never see the public without the advent of shareware. These products do not have a wide potential audience and would not be financially viable under normal conditions. However, with shareware, it is possible to help finance the development of software products for a market as specialized as the Amiga.

I am certain that if you were mishandled by a local farmer's roadside stand, you would not feel it your right to poach the farmer's produce at night directly from his fields. In many ways, this is exactly the effect using shareware without paying has on our programmers.

Many of these people are small one and two member programmer teams who derive their inspiration and gratification from the many small checks they receive. In too many cases it is not the monetary reward that keeps them going as it is the verification that someone really is using their products. This justifies the long hours and helps to ease their spouse's concerns.

I hope you will reconsider your stand. Without the option of shareware, many of the programs that pushed the Amiga into our lives would never have been made. And now, with the Amiga facing many challenges ahead, we need the dedicated Amiga shareware authors more than ever.

Dear AC,

Thank you for staying with the Amiga through all its recent problems. I have been subscribing to *Amazing* for several years now and greatly appreciate all the news and features you publish each month. I especially like the "How-to" features about WorkBench. The primary reason for this letter is to re-subscribe for another year. I was just going to call your toll-free number, but then I thought I'd like to express my appreciation for your magazine in a more formal way. Thus these written accolades.

I have a specific thank you to add for an article from the Sept. 1997 issue by Dave Matthews entitled "Network PC & the Siamese System". I'm sorry it took so long to respond, but my acquisition of the Siamese System took a long time. To make a long story short, I finally got my computers back with the Siamese System installed about 3 - 4 weeks ago.

I had originally ordered the System based on Dave's article way back in October '97 from my local Amiga store (The Slipped Disk in Madison Heights, MI). I bought a new PC, the Siamese System, and had my much upgraded Amiga 2000 hooked up to the System. It took a long time for many and various reasons, but I finally have the System home and working now. It's pretty slick to be able to switch back and forth between the Amiga and PC with just a click of the mouse! The only reason I did this was because there are some programs I need, like Tax Programs, that are no longer available for the Amiga. The Siamese System essentially replaced my 386SX-25 BridgeBoard. I still have a few minor bugs to work out, but essentially I'm happy now.

A couple of things I'd like to see for the Amiga are:

1. A printer driver for the Amiga to use the new HP 722c printer.
2. A monitor like the A1960 (which I now have) except in a 17" size.
3. Income Tax software for the Amiga.

Any information you might be able to obtain on these items would be of great interest to me. Also if you could pass this request along to the people at Amiga Inc. so they can add it to their list of things to do it might be helpful in making them happen. I love my Amiga and want to see the Amiga grow for the future. Long live the Amiga!

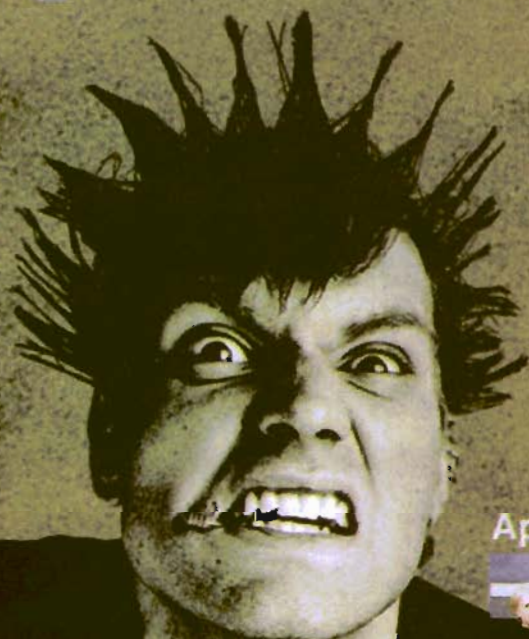
Sincerely,
Pat Horner
Warren, MI

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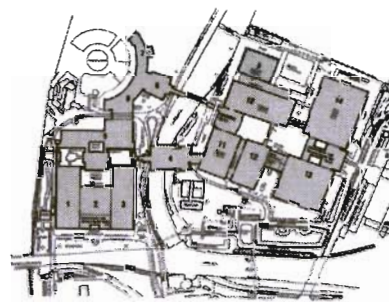
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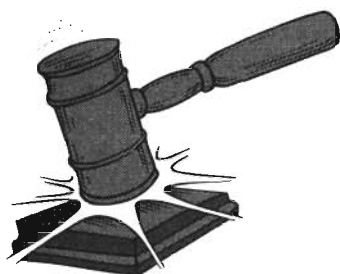
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**QuikPak Lawsuit Settled,
REBOL for Amiga is released,
ImageFX 3.2 is available,
AmigaZone is Bigger, a new
Amiga store, and more!**

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QuikPak Lawsuit Settled!

Stop The Presses. While this issue of *Amazing Computing/Amiga* was at press, we discovered that a settlement is just days away on the ESCOM QuikPak lawsuit. Although the participants are still nervous about the deal changing, sources from Germany and the US have confirmed that a settlement has been reached and that the paperwork is in the process of being signed to release the Amiga material so Amiga 4000s can return to production.

According to *Amazing Computing/Amiga's* sources, QuikPak will no longer be producing the A4000 Towers. The inventory of parts, which is currently in Pennsylvania, will be containerized and shipped to Germany for manufacturing. There has been some speculation that this transfer will increase the costs of future Amiga 4000 systems, however, no one has yet been announced as the new manufacturer and no pricing has been released. One source stated that Amiga 4000s could be available as early as this Christmas. This date is seen as unlikely by several US contacts.

Amazing Computing/Amiga first announced the lawsuit and the expected shortage of Amiga 4000 Towers in our September issue. The decline of available systems has had a negative impact on Amiga sales in both high and low end markets. Apparently with no high-end machines available, customers have been leery of purchasing the less expensive A1200s. With availability and price still an issue, it will take several weeks to see

any impact the release of Amiga 4000 Towers will have on the marketplace. *Amazing Computing/Amiga* will continue to monitor this story as it develops.

A.D.A. Computers Opening Storefront

A.D.A. Computers will be in their own storefront after November 14, 1998. The owner, Ralph Beauchamp, has been serving the local Amiga community out of his home for almost a year before deciding to "get serious". He says, "Once you explain the superiority of the Amiga OS, selling an Amiga is the easy part."

Ralph, with his son Michael, will be supporting the Classic Amiga line in hardware and software. They started with the A1000 and now have an A2000 and A4000 as well as a couple of A500s. "We stuck with them through thick and thin, now we want to be a part of the Amiga's future," says Michael Beauchamp, A.D.A.'s manager.

A.D.A. Computers will be carrying a full line of Amiga products to choose from, including magazines, "Boing Ball" Polo and T-shirts and other accessories. They are located in Elberta, AL on Highway 98 between Mobile, AL and Pensacola, FL. For more information, please email Michael at adfarm@gulftel.com.

A.D.A. Computers, 11770 Stucki Road, Elberta, AL 36530, Tel: 334-986-8428, Fax: 334-986-6308, Email: adfarm@gulftel.com

Power to the USERS

The NorthWest Amiga User Group has a license agreement with Amiga International for use of logos for Amiga promotional products. Among these are T-Shirts, Sport Shirts, hats, jackets, mugs, etc. This Amiga merchandise brandishes the logo "powered by Amiga USERS". The idea came from Todd C. Gustafson, president of NW Amiga Group when



printing up a poster for the AmiWest '98 show. In addition, he made up some buttons with the logo for the NW Amiga Group members to wear.

"Powered by Amiga USERS" was such a hit, Todd sought a license agreement with Petro, and *viola!* Shirts start at \$25.00 each, hats \$12.00, Jackets \$49.00. Visit the NW Amiga Group's web-site at www.nwamiga.org, where everything is posted, including photos, and special User Group Discounts. Dealers inquiries are welcome. Quantity discounts available. Contact Todd at prez@nwamiga.org, or 503-527-3891 voice, 503-659-0142 voice mail/fax.

Also from NW Amiga Group: ROM Bugs! These cute little critters are hand made from Original Amiga ROMS, individually numbered and presented with certificate. Get that special "Amiga Someone" a Christmas present for only \$10.00.

Northwest Amiga Group, Galleria, Suite 553, 921 SW Morrison Street, Portland, Oregon 97205-2723, BBS Phone: (503) 848-6391, www.nwamiga.org

Nova Design Releases ImageFX 3.2 Upgrade!

Nova Design, Inc., has announced the release of ImageFX 3.2. The new features of ImageFX 3.2 include support for more BMP and JPEG image file subformats, support for images saved from the Brilliance paint program, and minor updates to the IMP batch processor for ImageFX. Many new ARexx commands have been added as well, a new control has been added to the Layer Manager, and for owners of pressure sensitive drawing tablets, ImageFX now

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supports pressure in the airbrush painting tool.

Major work was also done to enhance the operation of ImageFX's region masks as well! Support for older Hewlett Packard SCSI Scanjet models was added along with many overall enhancements to this module, which include better previews. The Epson scanner module has been improved, but development of support for the Epson Perfection 600 model was dropped when Epson discontinued this model.

ImageFX 3.0 through 3.1c can download a free patch to upgrade to ImageFX 3.2 from the Nova Design, Inc. FTP site at ftp://ftp.novadesign.com/pub/imagefx/Official_Updates. The patch is also available on diskettes for \$10 plus shipping. (\$5 in the continental US, \$10 elsewhere). Upgrades from the older ImageFX 2.0 through 2.6 releases is \$79.95 plus shipping. Versions of ImageFX prior to 2.0 can be upgraded for \$124.95 plus shipping. ImageFX is also available new,

worldwide, through your local Amiga dealer or via mail order at a suggested retail price of \$349.95 US.

Nova Design, Inc., 1910 Byrd Avenue, Suite 204, Richmond, VA 23230 USA, 1-800-IMAGE-69, (804) 282-1157, FAX: (804) 282-3768

FinalOffice 1.0

SoftPartners Inc. has announced the licensing of the entire Final Series from Softwood Inc. and that FinalOffice 1.0 is expected to be released by November 1st at MSRP of \$100.00 per unit. For more information, please see their web site at: <http://www.softpartners.com>

REBOL Is Released

REBOL (pronounced Rebel) is now available as a free download for the Amiga from the REBOL site: www.rebol.com. REBOL is a multiplatform language created by Amiga programming founder, Carl Sassenrath.

REBOL

According to REBOL Technologies, "the REBOL messaging language has been designed for a broad range of users, from rank beginners to seasoned professionals. It was created for anyone faced with solving practical problems in our modern era of computing. REBOL is not just for programmers or the technically inclined."

REBOL is currently available for Amiga, FreeBSD, Linux, Macintosh PPC, Solaris 2.6 SPARC, and Windows 95/98/NT. It is currently unreleased for BeOS i386, BeOS PPC, HP UX, AIX, IRIX, OS/2, Psion, and Macintosh 68K.

REBOL Technologies, (707) 467-8000, FAX: (707) 467-8005, WWW.REBOL.COM, email: info@rebol.com

AmigaZone Grows!

AmigaZone has doubled the memory and disk space of its hardware host system to 128 MB of RAM and nearly 20 GIGabytes of mirrored disk space, for virtually unlimited storage of their ever-expanding collection of Amiga files, which go back to 1985. Hosted by CalWeb Internet Services, the biggest ISP in California's capital city, (home to the AmiWest show), AmigaZone runs a Wildcat5 or "WINS" system. Wildcat5 provides AmigaZone's members with total flexibility in how they wish to access the system.

AmigaZone offers over 40,000 files, and 40,000 text articles in Amiga Usenet and Fidonet newsgroups, Amiga mailing lists, and local message bases. They also feature .QWK packet transfers, an online image thumbnail maker, over a dozen ways to personalize and customize your account, a live chatting area with Sunday night prize contests, and members have access to a private FTP site and POP3 mail server. For more information about AmigaZone or to join and get your own account via secure signup, just visit <http://www.amigazone.com>

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Amiga OS 3.5

The upgrade for the Amiga Classic.

What Will It Have?
What Will You Need?
When Will It Be Here?

researched by Bob Scharp



Bill McEwen introduced Amiga OS3.5 to attendees at MAE.

After the first day of the Midwest Amiga Exposition (please see the article on page 40 of this issue), Bill McEwen, of Amiga Inc., addressed a room filled with Amiga enthusiasts and spoke of the goals of Amiga Inc., the direction of the Next Generation Amiga, and the release of Amiga OS 3.5.

Mr. McEwen briefly noted that the Amiga market needs an intermediate step between what we have today and what will be possible with the Next Generation Amiga. He noted there are over 5 million Amiga classic systems in the market today and Amiga Inc. believes they need to utilize Amiga OS3.5 to get this population prepared for the new Amiga.

Amiga OS System Requirements

What do you need to upgrade to Amiga OS3.5? A CD-ROM drive, a hard drive, a 68020 or higher processor, Amiga 3.1 ROMs, and 4 MB total RAM or more. For improved performance, Amiga Inc. recommends a 68030 processor or higher, 8 MB total RAM or more, a Graphics accelerator, a modem, and Scan doubler. To make the fullest possible use of OS 3.5 the following are also recommended a 68060 processor with PowerPC accelerator card, a 16-bit sound card, 32 MB total RAM or more, and an I/O Accelerator card

OS3.5 will not support DVD, JAZ, ZIP, LS120, multi-user, QuickTime, Acrobat, Java and Real Audio. These

Amiga OS3.5 will be available during the first half of 1999. Unfortunately, they have not formed a pricing strategy, however, they have promised to let us know when it is available. They have also promised it will be competitive with existing upgrades.

Amiga OS 3.5 will only be available on CD-ROM so a CD-ROM Drive will be a necessity. When asked why should it be available on just CD ROMs, Amiga Inc. replied, "CD Rom drives have been standard on all other platforms for about five years now. It is THE number one feature most requested by developers to allow them to produce richer, more feature laden apps. OS3.5, due to its feature enhancements and additions, has also grown to a point where the number of floppy disk required is becoming restrictive."

It was also noted that there would be no printed manuals with the release. From their release, it appears all manuals will be on the CD ROM. "The OS3.5 product will not ship with paper manuals, since this adds considerably to price and shipping. However, we are open to third party publishing opportunities."

A hard drive will be required because of the size of the OS. Mass storage is essential to bring the Amiga up to speed with the flexibility of other systems. Amiga Users will also be required to bring their Amigas up to Amiga OS 3.1 ROMs because the Amiga OS3.5 is built on top of the OS3.1. Not all Amigas allow for softkicking so they can't supply an OS3.1 ROM image, and just softkick from that.

Amiga OS3.5 is being created by a separate team than the Next Generation Amiga. There should be no delay between the two separate goals.

This is much more than just a bundle of
past products.

Amiga Inc.

Amiga OS 3.5 Features

Mr. McEwen quickly listed the features of the new operating system that will be available the first half of 1999. Amiga OS 3.5 system features included: RTA (support for Amiga audio cards), RTG (Retargetable Graphics—support for Amiga graphic cards), Email, Built in web browsers, and TCPIP (Dialers internet ready out of the box). Amiga OS 3.5 will only ship on CD and it will support hard drives greater than 4 gigs in size. PPC Co-Processor board support will be included., however, this is *not* a port to PPC of the classic line. Additional features will be: an enhanced interface, new printer support, shell enhancements, ARexx scripting enhancements, and new documentation.

items are being considered for the next generation Amiga. Amiga OS3.5 is a transitional operating system between what we know today and what we may expect in the Next Generation Amiga. However, Amiga Inc. has stated there are third party products that can provide some of these functionalities.

Amiga OS 3.5 FAQ

To handle the onslaught of questions about Amiga OS 3.5, Amiga Inc. created a FAQ (Frequently Asked Questions) space on their web site (www.amiga.com) and asked everyone with questions to post them at the site. At press time, the site had received some 1400 questions and Amiga Inc. had released some interesting information.

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When asked if Amiga OS3.5 will support NewTek's Toaster/Flyer, Amiga Inc. responded, "As long as the toaster/flyer follows OS legal conventions then there should be no problem. We will be testing this thoroughly though to make sure."

When asked, "With all the programs and patches released and sold over the years, what will OS 3.5 offer current users that we don't already have - other than the official Amiga Name on it?"

Amiga Inc. responded, "OS3.5 will offer integration of many features that have been requested for years, and which have been implemented as hacks and patches. Whilst it is true that we will not reinvent the wheel where we don't have to, we will also provide significant new features and enhancements. This is much more than just a bundle of past products."

Amiga Inc. also noted, "Amiga International, as the sales and marketing arm of Amiga, will handle any bundling deals." When asked if Amiga OS3.5 can be pre-ordered, Amiga Inc. asked that these questions be referred to Amiga International.

When asked if there would be special optimized versions for different

CPUs, Amiga Inc. responded, "No. People expect a performance boost from a 'processor specific version' very much in the same way as was observed in the past with special '020 versions of a program vs plain 68k versions of a program. The '020 programming model offers new addressing modes and arithmetic instructions which on the 68000 need to be emulated by far more instructions (for example, the '020 has a 32 bit integer multiplication instruction, the 68000 can only multiply 16 bit integers). Why is a custom '020 version better than a plain 68k version? The '020 version is more compact than the plain 68k version since it can use special instructions which on a plain 68k CPU would require "emulation code". Since the code is more compact and the instructions execute faster than the 68k emulation code, such programs usually perform better. Why does it make little sense to create custom '030/'040/'060 versions? All these processors use the same user instruction set as the '020, they just run it faster."

Please visit the Amiga Inc. web site at www.amiga.com or AC's site at pimpub.com for further information. Of course, Amazing Computing/Amiga will print any updates as they become available.

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Amiga OS3.5 Announcement!

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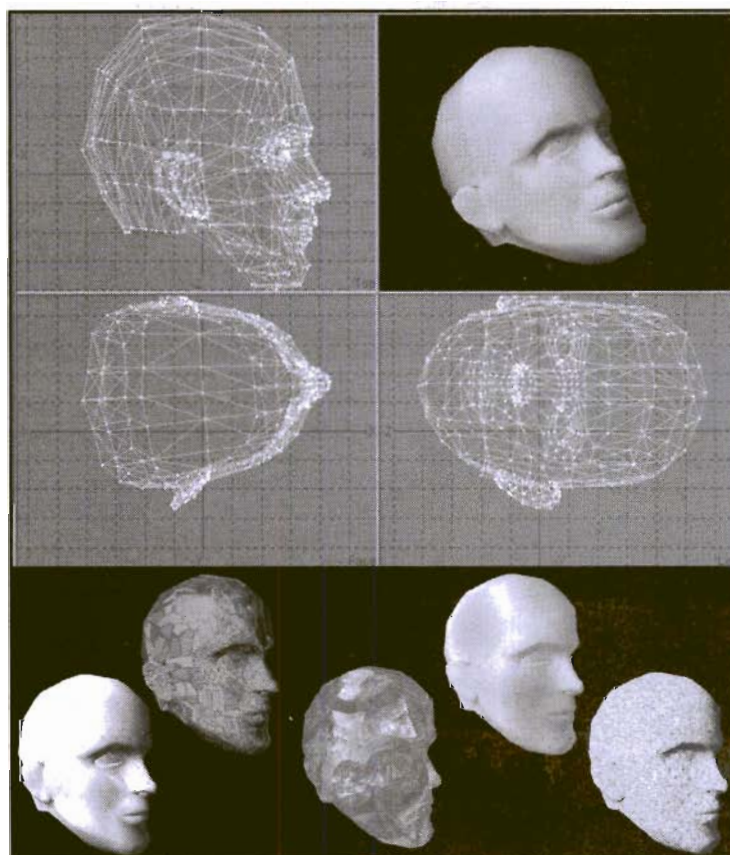
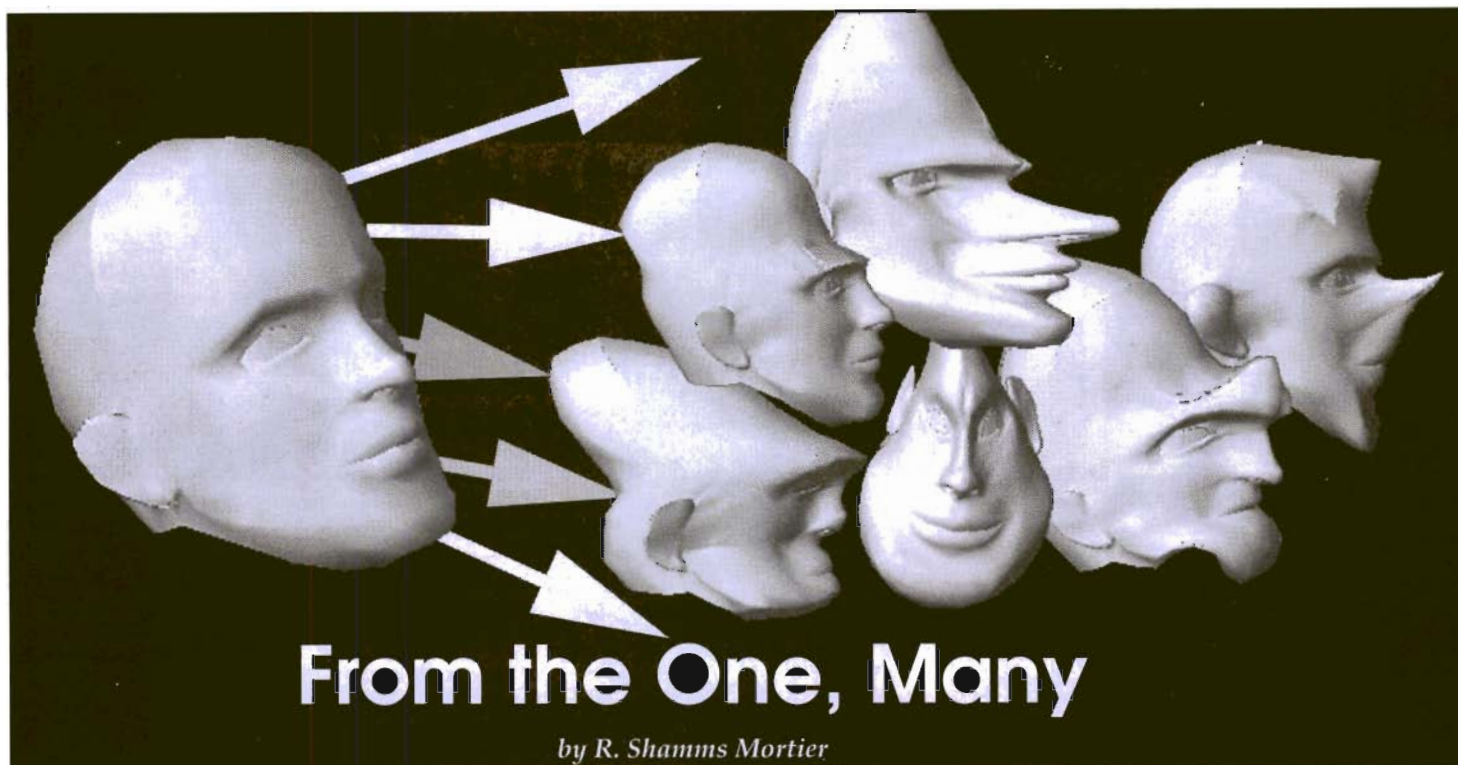


Figure 1. Importing a standard head object into LightWave Modeler allows you to use different surfaces to give the head alternate character looks. This is the easiest way to achieve character differences, but the objects still look cloned.

The title of this article is a play on the words spoken by Spock in *Star Trek II* (the movie). It is fitting to use *Star Trek* as a metaphor for what this article focuses on, since we are about to investigate the creation of a series of 3D creature heads that are generated from one basic model. The "many" that we will create from the "one" have their beginnings in LightWave's Modeler from a basic imported 3D head object. That means you will need LightWave 3D (preferably version 5) in order to explore these processes yourself, and the model of a head. The head can be from any available CD-ROM object collection, from the Humanoid models, or from a non-Amiga application like Metacreations' Poser.

Customizing Objects in LightWave's Modeler

When you think of the LightWave Modeler, you associate it with creating objects from scratch. Truth is, the modeler is far more useful as a customizing utility. There are other modeling applications on the market that are more variable and easier to use than the LightWave Modeler (including *Aladdin 4D*), but there are very few modeling packages that offer the easy customization the LightWave Modeler features (except for *Aladdin 4D*).

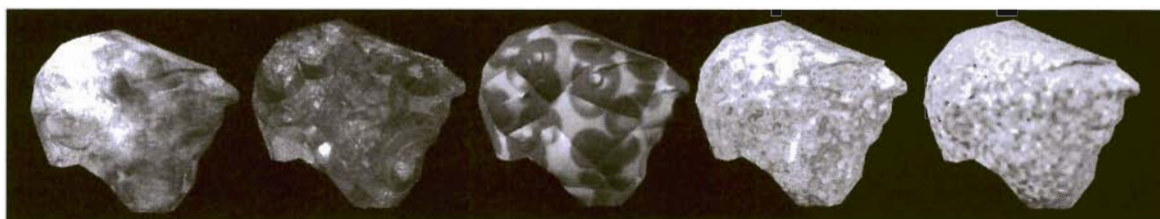


Figure 2. These heads were extruded along the X axis with LightWave's magnet tool. Adding different surfaces gives them even more variance.

There are two reasons for this. The first is the number and variety of LightWave Modeler's customization tools. The second is you can easily select areas of a 3D object, in addition to the whole object.

The feel of LightWave Modeler's customization tools is like working with putty on a 3D surface, so that as you interactively push and pull upon a model or specified sections, you can see the surfaces warp in real time. The primary workspace in Modeler where the deformation tools reside is in the Modify Tab.

"Normal" Models

If you want to create character looks without deforming a model, you have only one option. That is to alter the material texture with which the object is wrapped. In LightWave, this is accomplished in the Surfaces tab in the layout screen. A LightWave Surface is composed of colors, procedural textures, and bitmap textures. You can layer textures one upon the other, and call out the percentages of each in the mix. Bitmaps can be applied as diffuse, spectral, reflections, or any other texture channel option.

One way that I enjoy exploring alternate textures is to load one from the Surfaces library, and add or alter the Bump Map. LightWave allows you to apply bump maps at large percentages. I start by seeing what a bump map of 500% looks like, and tweak it from there.

The Magnet Tool

Used globally in LightWave Modeler's Modify tab, the Magnify tool can be used to push and pull on

Figure 3. Even by doing something simple like moving and enlarging the top of the head, a whole new personality can be constructed (in fact, a new alien race).

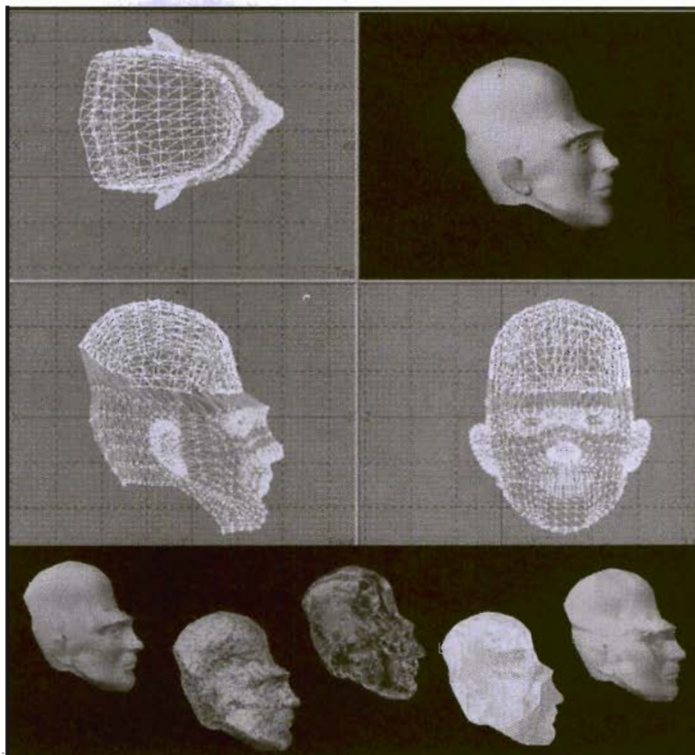
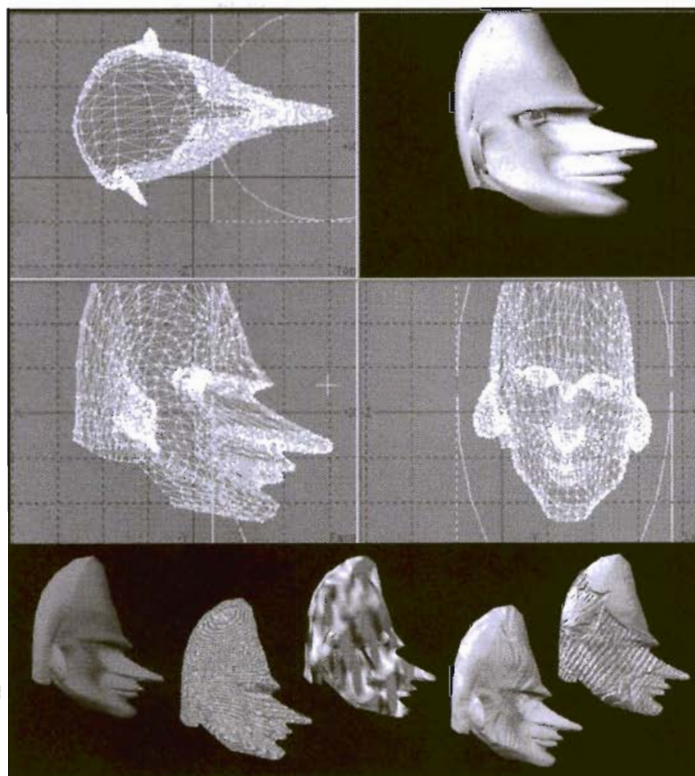


Figure 4. The magnet tool is also useful for application to smaller areas of a model accomplishing things like elongating a nose.



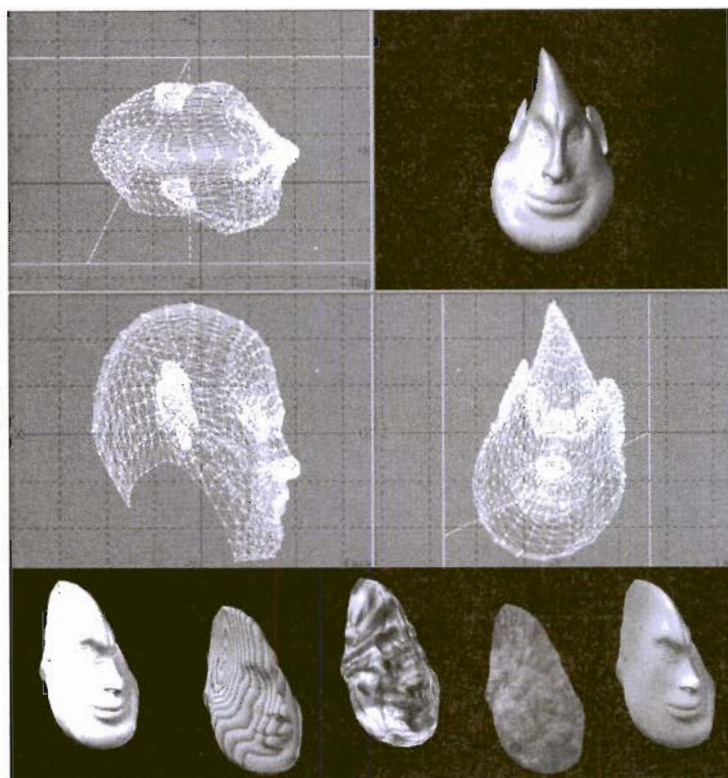


Figure 5. Twisting the model creates interesting modifications, like this pinhead figure.

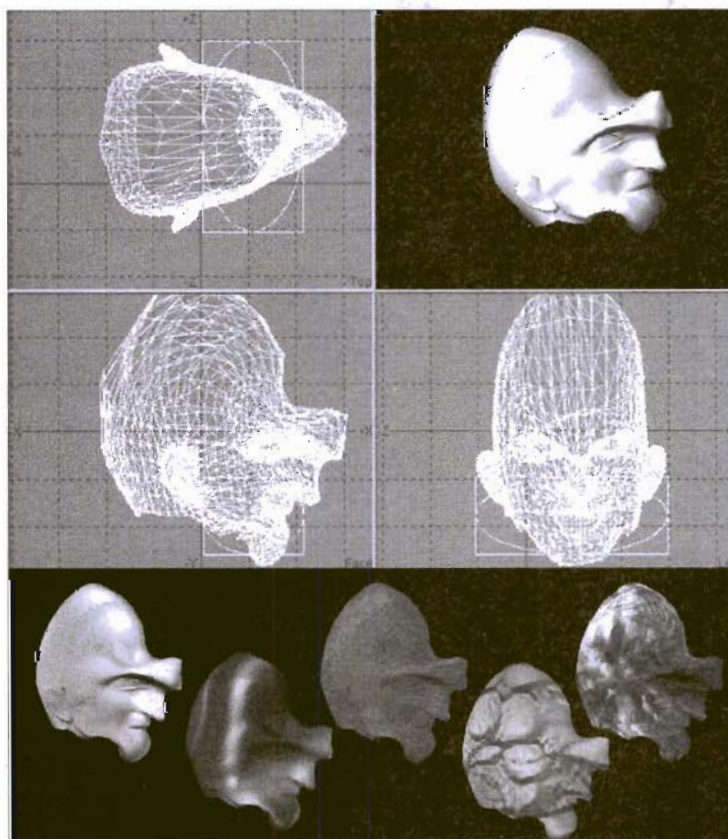


Figure 6. Using Vortex as the customizing operation, this elder alien was shaped from the basic head.

the polygon mesh. It's always best to consider doubling the polygons in any model you plan to deform, since this leads to smoother objects. It's also a good idea to triangulate the polys as well, since this keeps their normals more correctly oriented. The magnet tool can also be used to push and pull on smaller sections of a model, which allows you to fine tune the customization. Elongating noses and chins is accomplished in this manner.

Move, Resize, Rotate

There are times when a simple resizing and/or re-positioning of a part of a model does the customization trick. Selecting a part of the model, and then applying a Move, stretches the intervening polygons. This option can be applied to the smallest parts of a modeled head, like just to the ears or eyebrows. It's a good idea to zoom in so you can see what you are doing when using this method. The same can be done with the resizing operation. Rotations add even more variety, since you can rotate only the mouth on a head to make it scowl or laugh, and squint the eyes as well.

Twist

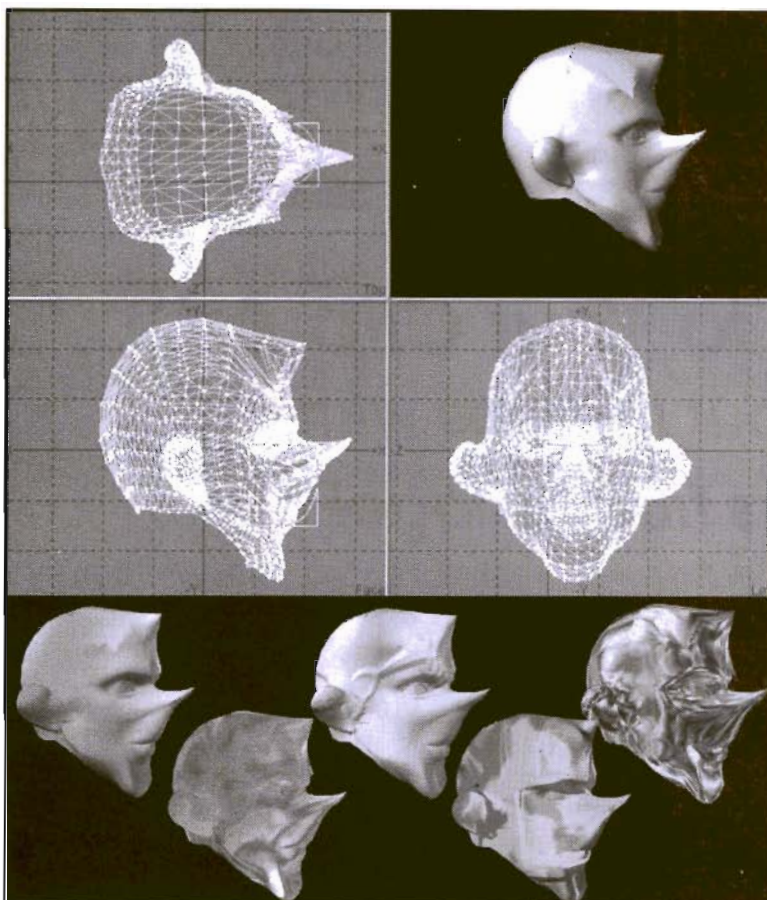
Twist takes a bit of exploration to get used to. Twist works best when smaller sections of the object are identified. Twist works on any of the object views in the Modeler. It can be used on the eyes to give them more emotion. Twist is one of the modification operations best applied carefully, or you will wind up creating monsters where none were intended.

Vortex

I think of Vortex as Twist with an attitude. Vortex operations swirl the selected area (or the entire object) just like the swirl operations in a 2D f/x application, like ImageFX, only the effect is applied on a 3D object. Apply Vortex gradually and slowly, or you'll wind up with a big mish-mash of polygons that resemble nothing you will want to use.

Pole

"Pole" applies Polar Coordinate displacements to the selected object or object area. There are Pole 1 and Pole 2 options, and the best way to understand how they differ is to explore both of them. In some ways, using Polar modifications on the selected polygons is similar to using the Vortex operation.



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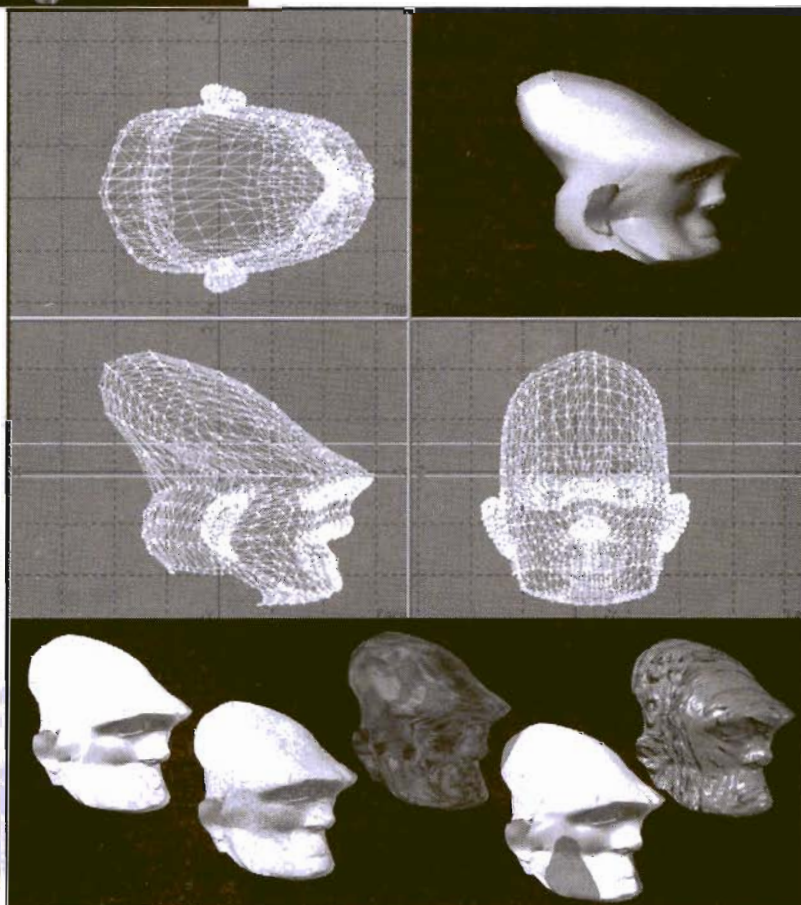
Figure 7 (Left). This devilish model was created using the Pole 1b operator on the basic head.

Figure 8 (Below). The Shear operator allows you to do things like create sloping brows.

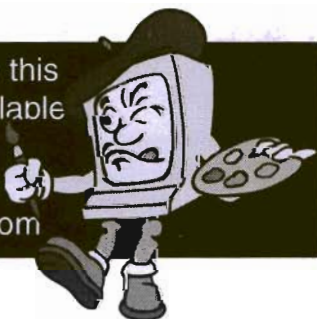
Shear

Shearing is an operation you might be familiar with in desktop publishing work. Shearing used on text makes the text italic, giving it either a forward or backward slant. Shearing a 3D object does basically the same thing. Shearing is the operation to use when you want the upper part of a head to slope, creating a Neanderthal-like appearance, or when the jaw needs to protrude.

In future articles on the options available in LightWave's Modeler, we'll take a look at more tools. Enjoy! See you in ROMulan space. •AC•



The pictures in this article are available in full-color on our web site at www.pimpub.com



SPEED IT UP!

Adding Zip to Your Clip Art. Rev up your images with a few tricks from ImageFX

by Nick Cook

Fellow "Twilight Zone" fans may remember the "Elegy" episode. Three astronauts land on an Earth-like asteroid, but discover all the inhabitants are motionless. In true TZone style, it turns out that the asteroid is actually a vast cemetery, where the dearly departed are poised engaging in favorite activities.

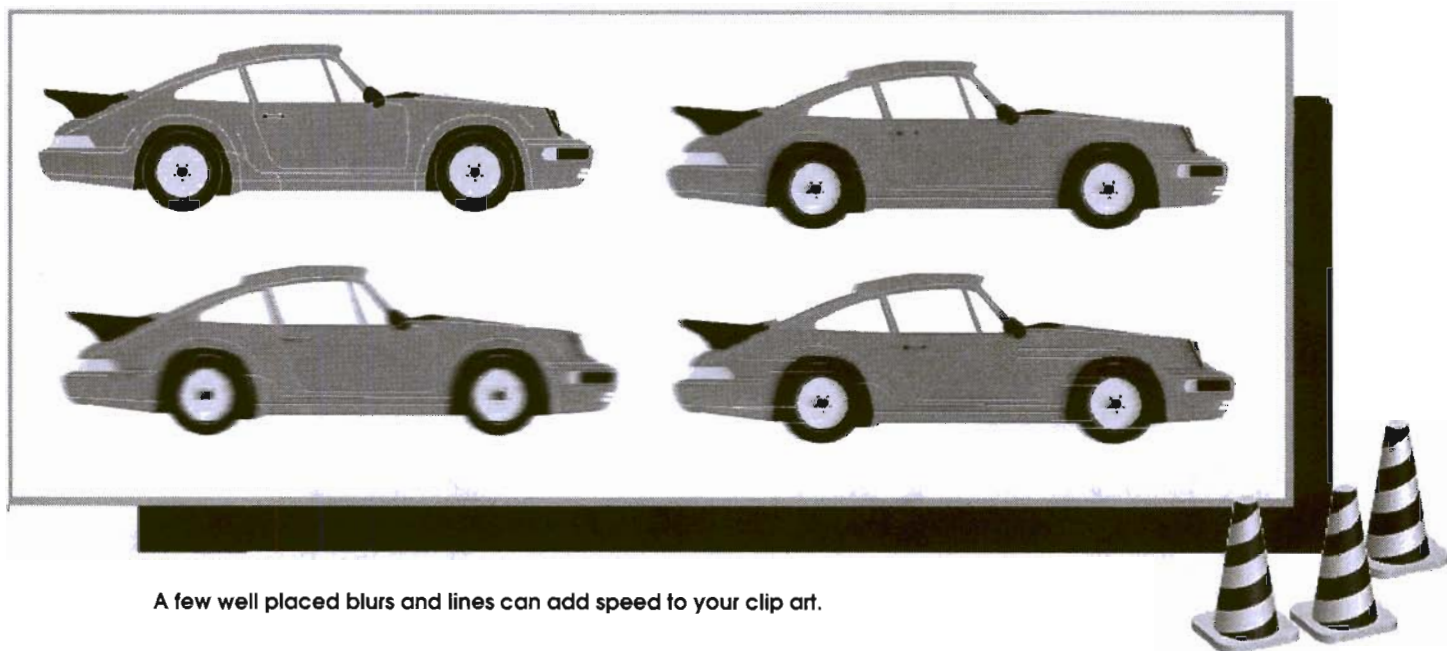
Screenwriter Charles Beaumont included his car racing passions as one of the scenes. Douglas Heyes, the director, had a problem with that. He

said "...stationary cars don't seem to be frozen in movement; they just seem to be parked cars." (Heyes substituted the famous beauty pageant scene).

The same dilemma pops up with the printed page. How do you add motion to a static image? For example, is our subject car (upper left) parked or traveling at a hundred miles per hour? Right now, we can't tell. We'll use ImageFX 3 to get the car into gear.

STEP ONE: Create a new Buffer from the Buffer menu. Since you are going to need a little room to maneuver, make it slightly larger than the art it will hold. Fill the new Buffer with White, also in the Buffer menu. This effect works best against a white background.

STEP TWO: Import your clip art as a brush and stamp it down. It makes things a little easier if the



A few well placed blurs and lines can add speed to your clip art.

brush's background color is transparent. If it isn't, flood fill the brush background with white. We're going to need a copy of this artwork. If you've had to fill the background, use the Magic Scissors (click twice on the Scissors icon) to pick up the clip art, but not the background. Copy the entire buffer; that is, drag out the clip box to the entire frame.



STEP THREE: Select Motion Blur from the Convolve menu. Since our car is going to the right, the blur needs to go to the left. In the Motion Blur requester, the line on the Angle gadget should be set at 3 o'clock (0 degrees). The Length amount was 20 in the example (lower left). Remember to set the region control back to Full before you blur!

STEP FOUR: The car certainly seems to be whizzing along, but the art's detail is lost (lower left). When the RoadRunner zips away from Wiley E. Coyote (to employ another television example), only his feet are blurred; his head remains in focus. So let's put some detail back in. Click on ImageFX's Layer icon. When the Layer Manager opens, select New Layer from Brush from the popup menu. Your brush should appear directly on top of the blurred car. You'll see bits of blur at the car's rear, but no place else. Now we've added too much detail. The new

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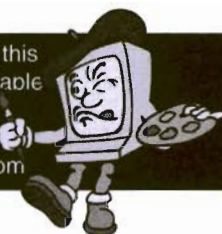
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layer should be highlighted in the Layer Manager. Double click on it, and change the blend to 50% (you can also change the layer's name, if you want). The top layer car now provides a stable "ghost" image, but you also can see the blurs on the doorposts and mirror (upper right).

STEP FIVE: Think about cartoons again. When one character runs away from another, the animator may draw some "speed lines." Why don't we? Select the Straight Line tool, and double click on it. Pick the "Fade Out" mode with Blend set to 90. Set Edge to Feather Out, with a Radius of 50. Now, add some speed lines to the car. When you are happy with the result, Flatten the layers with the command in the Layer Manager's popup menu. Our car now appears to be zooming along (lower right).

The pictures in this article are available in full-color on our web site at www.pimpub.com



This same technique can be used on text, too. The article title added an extra wrinkle. After the text was set in DrawStudio, the Warp effect "Bend Horizontal" effect was applied. The text was exported as a bitmap, then went through the steps above.

Let us try to catch up with the Roadrunner for a comment. He sums up this technique in the immortal words: "Beep! Beep!"



Aladdin4D: Cutting Torch Animation Project Tutorial Part 4:

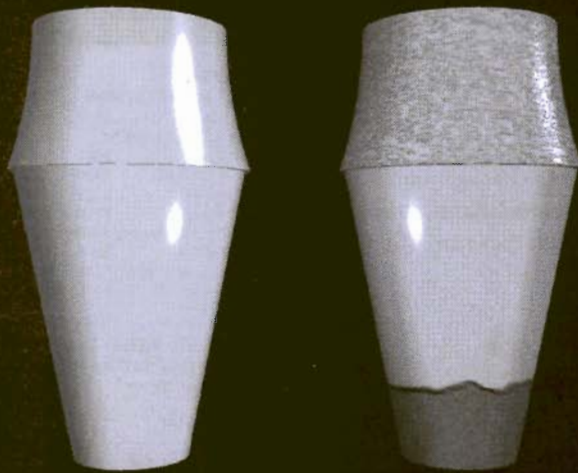


Figure 1: The textured torch head, on the right

Texturing the Torch Head

It's time to add grit to our model and create
a look of long-time wear and tear.

by Dave Matthews

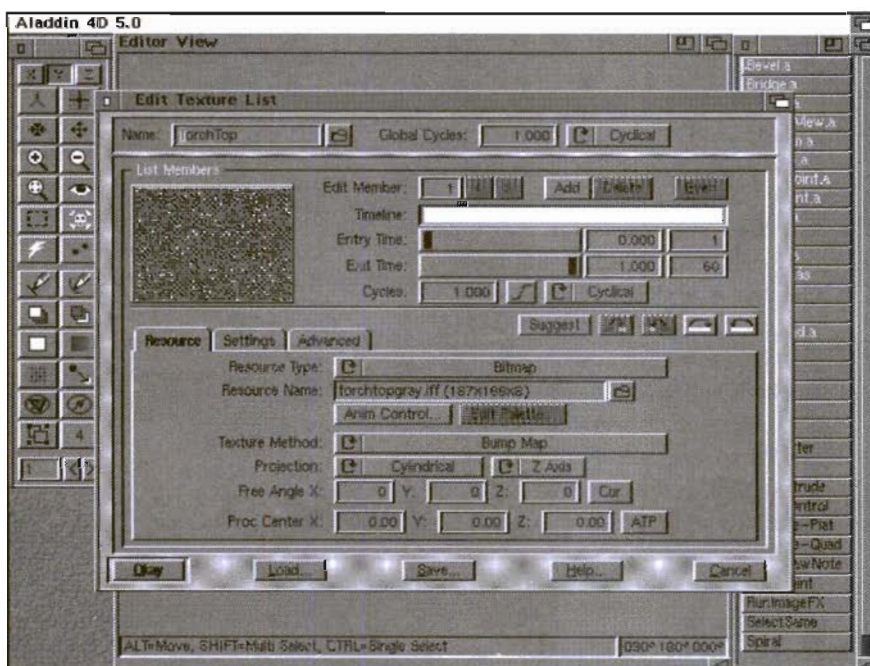


Figure 2: The bump map texture settings

Last issue we completed the first half of surfacing the torch head, adding shading and coloring. This issue we continue where we left off and add textures to the Torch head. This will add gritty verisimilitude to the object, and give it a more realistic look of something that has seen long and hard service.

Bitmap Textures

Aladdin has a multitude of options for textures. Aladdin supports two basic texture forms, bitmap and procedural. Any IFF or JPEG format picture can be used as an image. Actually, you may have trouble with some of the newer JPEG pictures.

Recently, the JPEG standard has learned some new tricks, most notably progressive display. This is handy for

use on Web pages, but it can confuse software not written to support it. Aladdin, for example, simply locks up when a progressive JPEG texture is selected. You can use a program like Nova Design's ImageFX 3 (which I will be using throughout this article) to convert Progressive JPEGs back to normal.

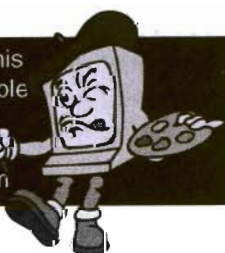
Bitmap textures have the advantage of allowing near infinite flexibility in choosing your texture. Since objects from the real world, such as metals, cloth, wood, and stones can be digitized, very realistic surfaces can now be created.

Bitmaps, however, also have bad points. Bitmaps look better with more colors and higher resolution, but these attributes also ensure that your bitmap

Aladdin has a multitude of options for textures. Aladdin supports two basic texture forms, bitmap and procedural. Any IFF or JPEG format picture can be used as an image.

texture will require more memory and hard drive space. Bitmaps can also be a problem for animators. If the camera zooms in too close to a bitmap, the individual pixels will be revealed, destroying the illusion of reality. Aladdin has several tricks to help avoid this, including antialiasing to smooth the bitmap, but there are times when bitmaps simply won't work.

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Procedural textures

Procedural textures, on the other hand, are mathematical formulas Aladdin uses to create a texture. Aladdin comes with 25 procedural textures, with near infinite sub-variations and options, from simple bands and blocks to complicated

fractal "noise" textures. Procedural textures require very little RAM and disk space, and moreover, do not suffer from pixelization.

Procedurals have their own set of limitations, though. While through the use of the noise textures, in combina-

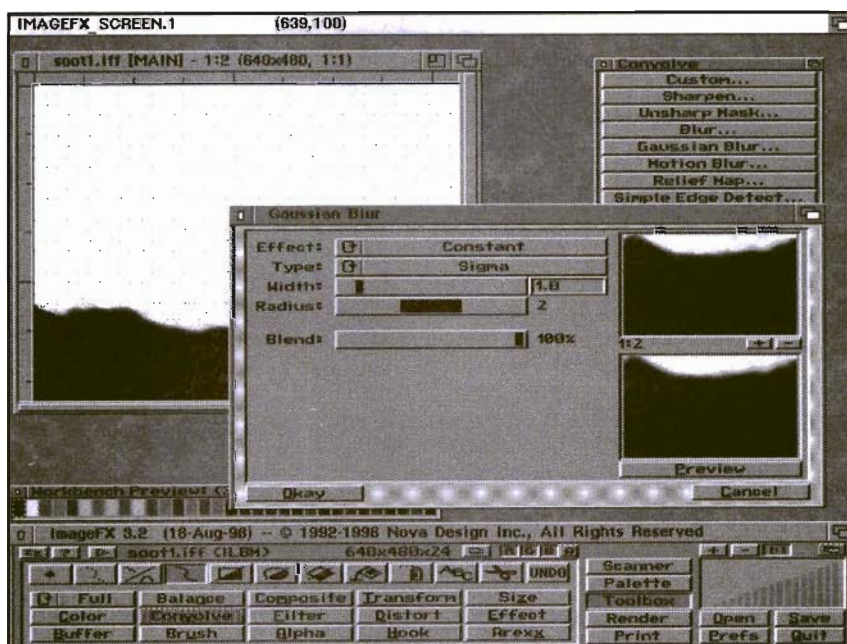


Figure 3: Making a bitmap texture with ImageFX

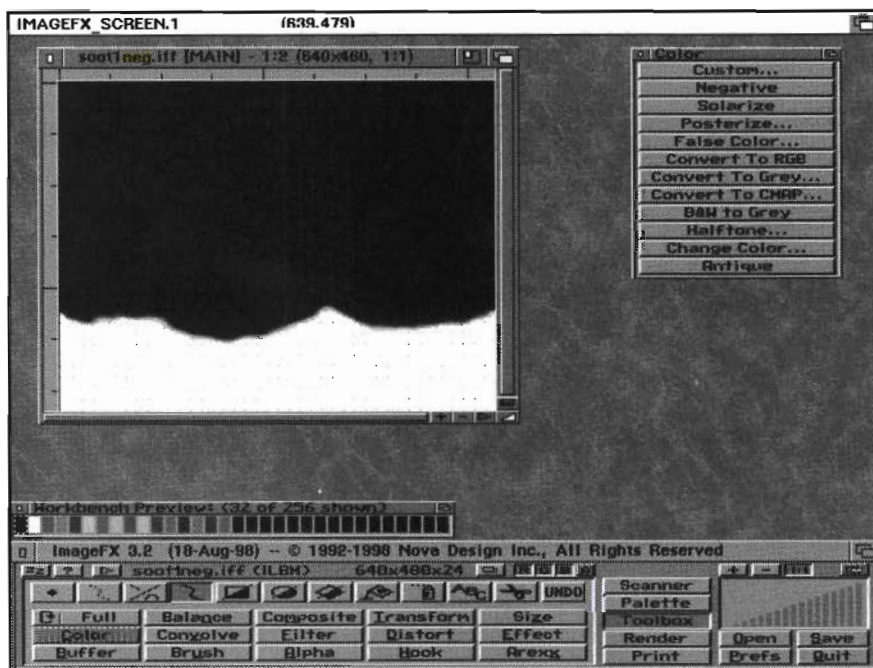


Figure 4: The final negative texture

tion with Aladdin's ability to layer multiple textures can result in highly pleasing surfaces, it is very difficult to create good looking wood, marble or other real world textures. Textures are also limited to 8 base colors, and, although Aladdin can blend these 8 colors, sometimes this limits their usefulness. Finally, the artist cannot add their own new procedural textures, and are stuck with the ones provided.

Texture: A Dirty Word?

With any industrial tool or component, there is a varying amount of wear and grime, at least in the real world. In the artificial climate of the 3D program, objects can tend to look a bit sterile. Unlike the real world, 3D Worlds tend to be clean and orderly, unless we deliberately do something to make things messy. Imagine if your house were like that!

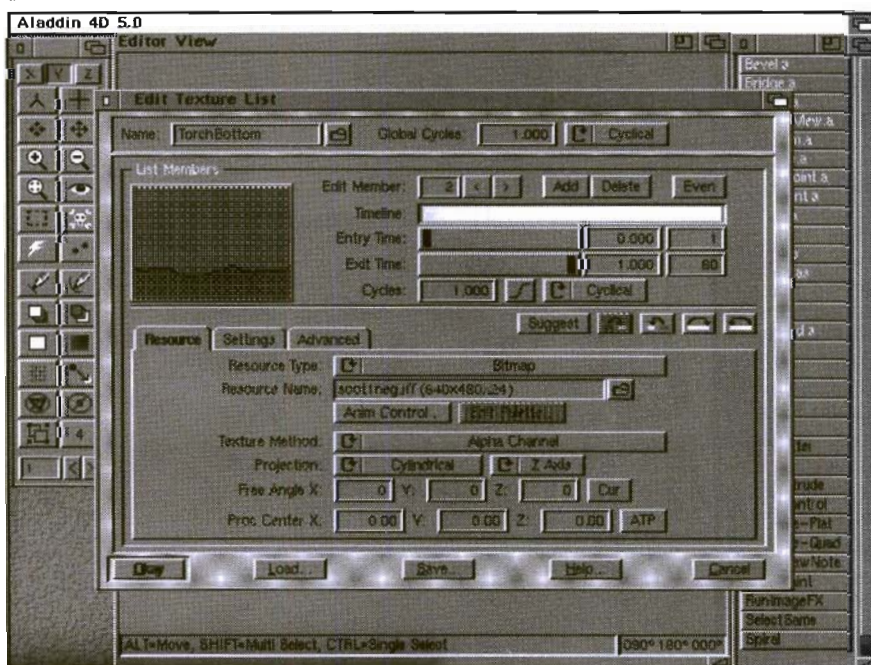


Figure 5: The alpha texture, resource tab

I am going to use bitmap textures, though most of the techniques involved could also be applied to procedural textures. In order to create, scan or manipulate bitmap textures, a good paint or F/X program is a must. I am going to use Nova Design's ImageFX, although any good paint program could be used.

For the top of the torch head, I wanted a surface that would, in the real world, be conducive to holding a firm grip. I decided that the background texture, background.iff, that comes with Aladdin 4D would be just the thing. Oddly enough, Aladdin 4D didn't care for this IFF file, and wouldn't load it as a texture, although it does load it as the editing screen backdrop. Hmmm. In any case, I used the color menu in Image FX to convert it to an 8-bit gray scale, then resaved it. Aladdin works best with either 8-bit (256 colors) or 24-bit (16 million colors) bitmaps.

To get the look I wanted, I used the bitmap as a bump map. A bump map is a useful way of making a surface look bumpy, without actually building the bumps into the model. Although somewhat limited, you can't do really big bumps, it can be quite a time saver in certain circumstances, as in giving the top of our torch head a touchy-feely surface. Under the Resource tab, I set the type to be bump map and the projection to be cylindrical in the Z (up and down) axis. Under settings, I turned color to 0, and set the strength to about 0.7. See Figure 1, on the right for the finished texture, and Figure 2 for the Texture settings.

Tune in to the Alpha channel.

For the bottom part of the cutting torch, I didn't want a bumpy texture. What I wanted was a sort of burned look near the tip, and relative clean elsewhere. To do this, I needed an image with a semi-random black strip at the bottom, which represents the burned area, and the rest of the image blank. In Image FX, I created a simple white box at the bottom of a black canvas. I started with a filled rectangle so I could make a seamless image.

The bitmap will be wrapped around the cylinder, and the the two ends will meet. To avoid a seam, both ends must match. I then used the freehand draw and airbrush to roughen up the rectangle, being careful not to mess up the ends of the rectangle.

Once I had the look I was after, I used the Guassian Blur (convolve) to smooth the edges. After some trial and error, I realized I needed a negative of the image I had, so back to ImageFX once more, to the color, negative command. See Figure 3 and Figure 4 for several steps in this process.

The reason I needed an inverse of the picture was so I could use an Alpha channel. An Alpha channel texture is different, in that it doesn't make a texture directly, but uses a texture to affect another texture, based on the luma or brightness of the first texture. In this case, I made a solid black bitmap as the secondary texture. Where the alpha channel texture was white, it would "cut" the secondary texture, eliminating it from the finished picture. Where the alpha channel texture was black, it would let the secondary texture appear. See Figure 1 for the results, and Figure 5 and Figure 6 for the Texture settings.

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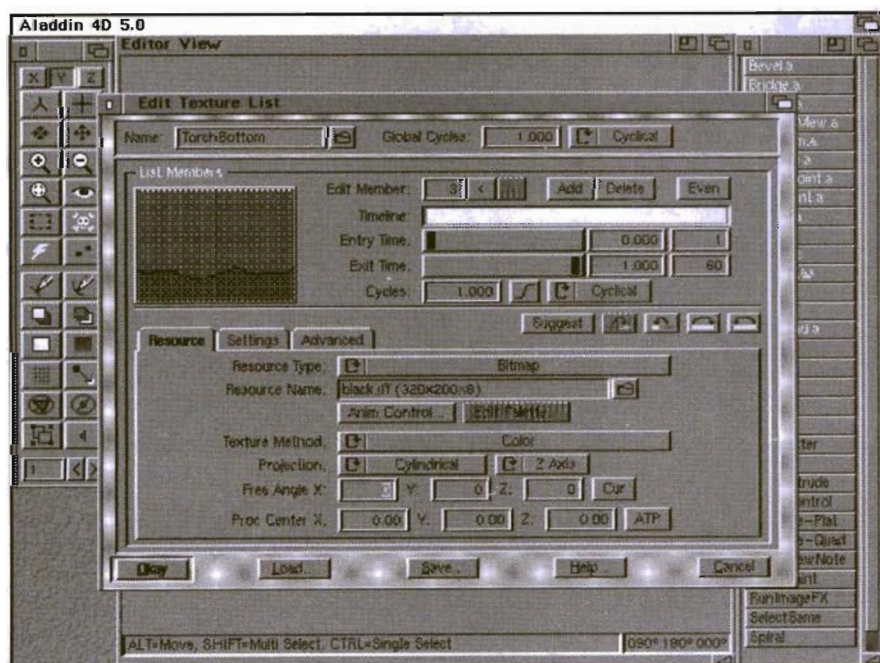


Figure 6: The target of the alpha texture

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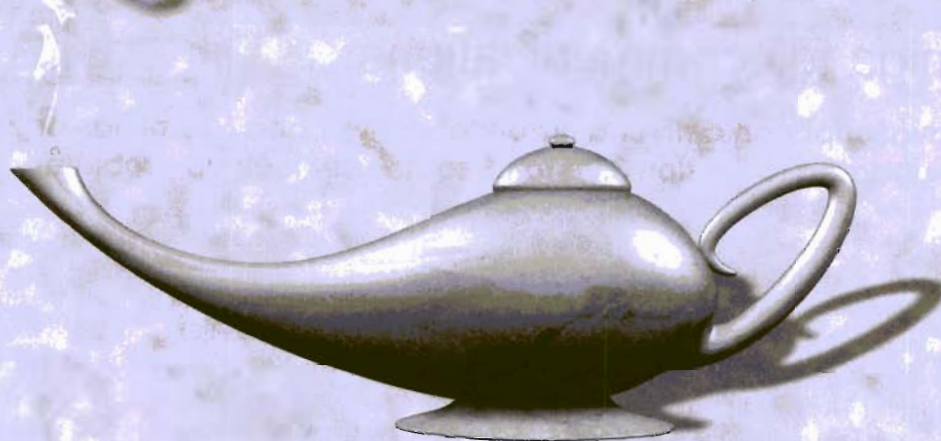
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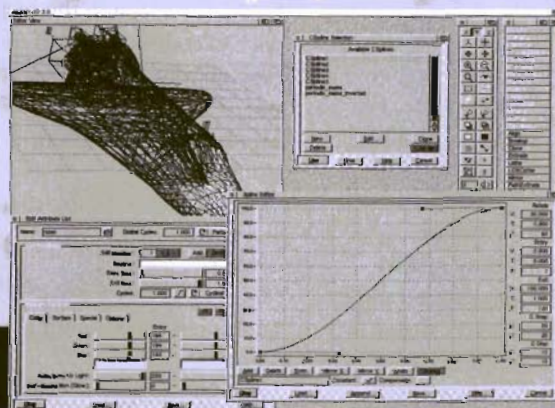
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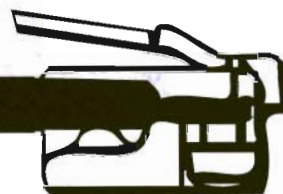


Images and models contributed by Jason Grimes and James Banks

on line

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JavaScript can deliver a history of activity and Miami has been updated to version 3.0d to fix some user lock up problems.

Where Have You Been?

With JavaScript's built-in knowledge of Web Browsers, and their windows, it is easy to give your visitor a bit of *deja vu*. You can find out the total number of pages viewed since the Browser was started, move your visitor forward and backward through this history, and then re-display these pages. To construct a page to show the number of pages in the Browser's history file, start with our standard HTML page template:

```
<HTML>
<HEAD>
<TITLE>Where have you been?</TITLE>
<!-- From the November 1998 Amazing Computing -->
</HEAD>
<BODY>
<SCRIPT LANGUAGE = "JavaScript">
<!--

//-->
</SCRIPT>
</BODY>
</HTML>
```

Now we'll access the window history with the JavaScript object appropriately named `window.history`. Since we're curious about the number of pages our visitor has viewed, we'll use the `.length` property, and display it with this line added to the above between the two comment lines:

```
document.write(window.history.length);
```

This will cause JavaScript to query the Browser's history file for the number of pages listed there, and print this number to our Web page. While this is interesting, it's really of very little use. More interesting are the methods available to the `window.history` object. You can cause the Browser to display select pages from the history file. If you add this line to our HTML code:

```
window.history.go(-3);
```

The Browser will display the page 3 pages earlier than the current one. Substituting a positive number will move forward through the history file. You can also use the `.forward()` or the `.back()` methods to move forward or backward through the history file one page at a time. Now we can combine part of the code from last month with this new object to create a page that tells the user how many pages are in their history file, gives them a box to enter a number of pages to skip backward to display, and a button to click.

Start by skipping to the bottom of our page, just above the tag:

```
</BODY>
```

and add the following lines:

```
<p>
Enter a number smaller than the number above <p>
<FORM NAME = "where">
<INPUT TYPE = "TEXT" NAME = "amount">
<p>
<INPUT TYPE = "BUTTON" VALUE = "Click to submit,"
onClick = "diff()";>
<INPUT TYPE = RESET VALUE = "Reset">
</FORM>
```

Since we have already printed out the number of pages in our user's history file, we tell them to enter a number in the box smaller than their history length. Then we open an HTML form named "where" with a text input box named "amount". Skip a line and make a button to click for submission, and one to reset the form. If the user clicks on the submit button, the `onClick` mouse handler detects it, and calls our function named "diff()". The function itself goes after

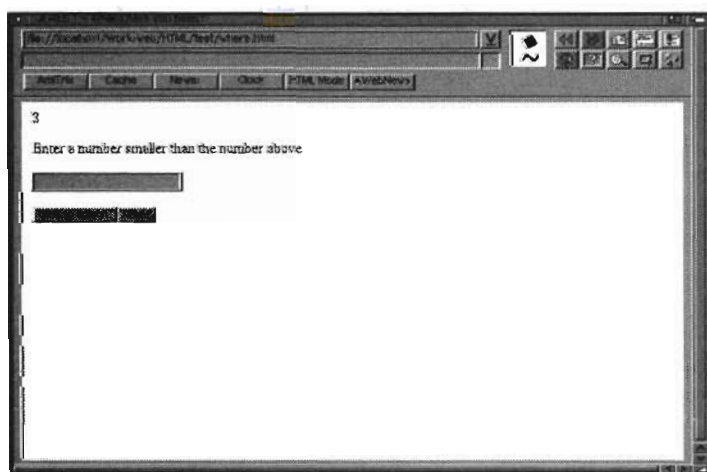


Figure 1 The Where Have You Been page in action.

the first comment line near the top of our page, and above the "document.write(window.history.length);" line. This is what to type in:

```
function diff(){
var offset = (where.amount.value);
offset = (0-offset);
window.history.go(offset);
}
```

The first line announces a function is coming up, and names it "diff". The second line establishes a variable called "offset", and makes it equal the "value" of what was typed into the box "amount", in the form "where". Next, since we want a negative number in order to move backwards through the history file, we subtract "offset" from 0 (zero), and store the result back into "offset". Then we call the "window.history" object with the ".go()" method set to the value in "offset". This causes the Browser window to display a page from its history file. Finally, we close the function. The final result is shown in Figure 1 and Listing 1, and the file can be seen in action by following the Amiga and JS101 links from my Web page listed below.

Updates

Miami has been updated to version 3.0d, which fixes a lockup some users were experiencing. Follow the Miami link on my Amiga page to get the latest version. AmiNet has also gotten an update to a couple of their pages.

New is a page listing the top 20 files downloaded during the past week, as well as users' ranking of the best 20 files (Figure 2). This also shows a new piece of information found for each file on AmiNet, the age in days since it was uploaded. This is a great addition, because now you can tell at a glance if a file is new, or an older one without first getting the description for the file.

Another change is found when you search for a file. No longer does the system display only the first 50 files that match your search string (Figure 3). While this means some longer download times if your search turns up many files, you no longer have to wonder if the file you wanted would have been number 51 in the original listing.

The pictures in this article are available in full-color on our web site at www.pimpub.com

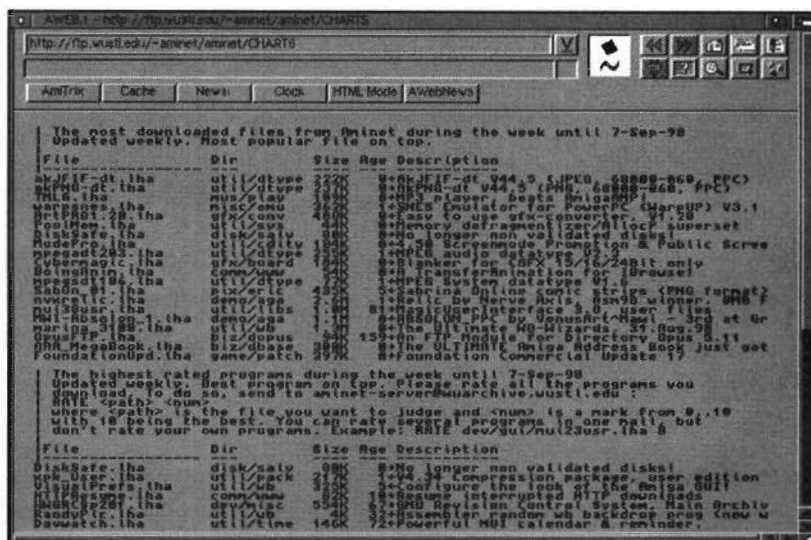
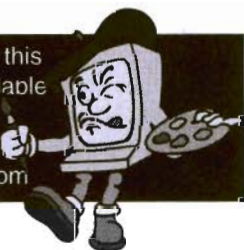


Figure 2 Only the Most Popular and the Best are listed here!

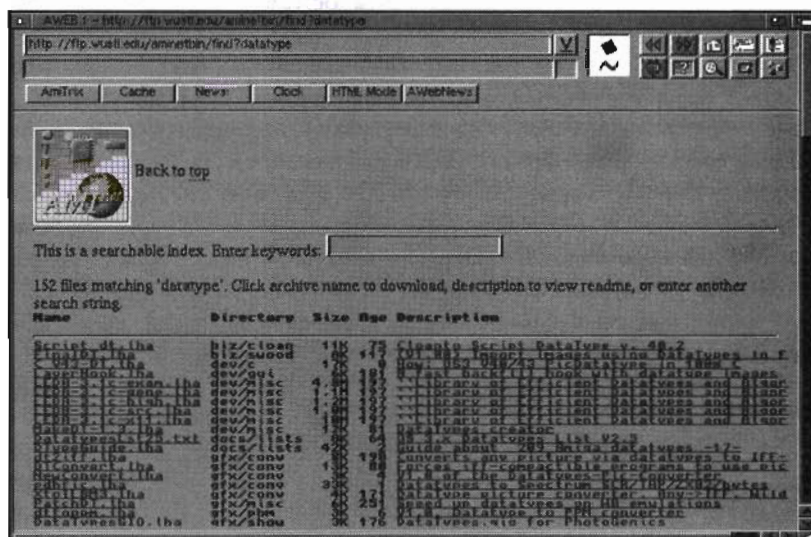


Figure 3. Now AmiNet searches show all of the matches.

Where To Find Me

rhays@kiva.net
<http://www.kiva.net/~rhays>

For U.S. Mail:

Rob Hays
 P.O. Box 194
 Bloomington, IN 47402

Please include a SASE if you need a personal reply.

If you run an Amiga specific BBS, send me the information callers will need to access your system. Phone number(s), modem speeds, software settings, etc. As a service to the Amiga community I will include the information I receive in this column from time to time. If you come across any World Wide Web sites you feel would be of interest to the Amiga community, pass them along for

(continued on page 30)

This Old Workbench, Episode 23: Building the Perfect Workbench, Part Five

Corrections and Refinements

Even in the best of circumstances, problems occur, there are changes of heart, and better opportunities become apparent. This is a short detour to correct a few sharp turns and return us to our goal—the perfect workbench.

By Dave Matthews

The Past Returns to Haunt Us

I've come across a few glitches in the recommendations I have made during the course of building our perfect Workbench, so we will have a look at these problems before we go on to new stuff.

First, let's return to the "user directory" scheme I proposed earlier. As you may recall, the idea here is to create a separate set of directories for third party programs and files, in order to keep the original files of the Amiga OS organized. This helps keep problems like a program over writing an important system file to a minimum, since the install process will point to user created directories, while still allowing full access to all the files of the Amiga's OS.

The following lines show the basic commands to set this up, from the Startup-Sequence:

```
Assign >NIL: Fonts: Stiletto:Fonts-User
Assign >NIL: Fonts: Stiletto:Fonts ADD
Assign >NIL: Fonts: Shiva:D'Rezz/Ghostscript/fonts ADD
Assign >NIL: C: Stiletto:C-User
Assign >NIL: C: Stiletto:C ADD
Assign >NIL: LIBS: Stiletto:Libs-User
Assign >NIL: LIBS: Stiletto:Libs ADD
Assign >NIL: LIBS: Stiletto:Classes-User ADD
Assign >NIL: LIBS: SYS:Classes ADD
Assign >NIL: DEVS: Stiletto:Devs
Assign >NIL: DEVS: Stiletto:Devs-User ADD
Assign >NIL: L: Stiletto:L-User
Assign >NIL: L: Stiletto:L ADD
```

There are two important facts to note. The first part of each command hijacks the normal assign to point to the user created directory. The second part assigns as an addition the original directory, which means the system will look to the first directory, then the one using the ADD option.

Sharp eyed readers will notice a couple of curious things. First, both the Classes and Classes-User directories are ADDED to the LIBS: assign. Classes, which hold the datatypes and a few other things are special examples of Amiga's shared libraries, and thus are lumped in with the LIBS: assign, rather than receive their own CLASS: Assign. Notice that again, the Class-User directory is assigned before the original Classes directory, so the system will go to the user directory first.

Secondly, unlike all the others, the Devs-User directory is not assigned first, but is assigned as an additional ADDED directory. The reason for this is simple, and unfortunately, seemingly impossible to get around. In the DEVS: directory you will find the directories for DOS drivers, monitors, printers, datatype descriptors and other stuff. The fault, dear Brutus, lies not in our stars, but in our datatypes.

Note that the Datatypes directory in DEVS: is not the same as the Datatypes directory in the Classes directory. The files in the classes/datatypes, for example ilbm.datatype, contain the code to actually view the

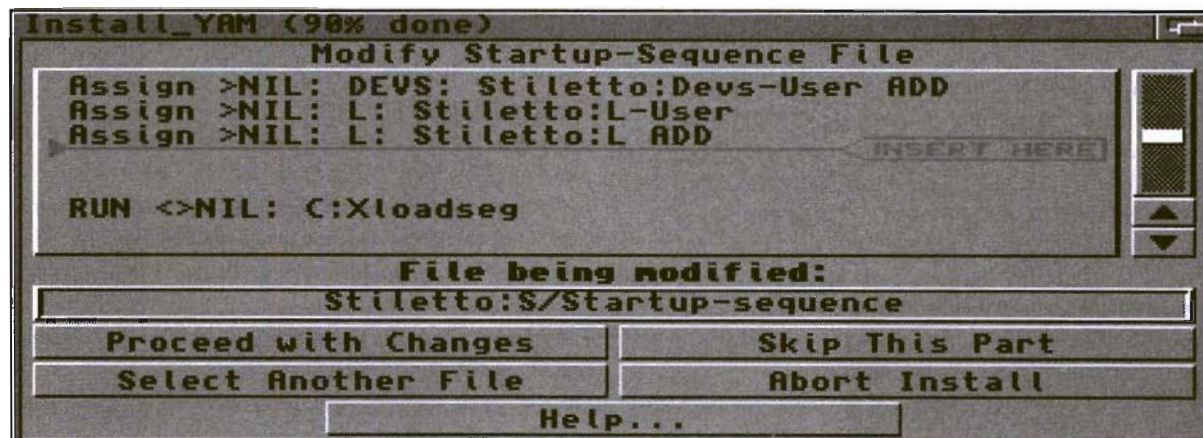


Figure 1: MultiStart Installation Conflict

corresponding file. The files in the DEVS:Datatypes directory, are the matching descriptors, ILBM for the above example, which contain information on how to recognize the various file types.

While the Amiga is perfectly happy with putting the datatype files in a user created directory, it balks when the same approach is tried with the descriptors. Only the datatypes directory in the first DEVS: assign is recognized. The second assign using the ADD option is apparently ignored. I haven't found a workaround for this, so I suggest you keep all of your datatype descriptors, original and third party, in the original DEVS:Datatypes directory.

Start it again Sam, or maybe not...

Another crop of glitches has surfaced regarding the program MultiStart. If you recall, MultiStart allows you to customize your Amiga's boot sequence.

The first problem is in regards to the manner in which MultiStart changes the Startup-Sequence file. In essence, only the commands needed to run MultiStart are left in the original Startup-Sequence. All the other commands are put in various sub scripts, such as Start-Def, which are called by MultiStart. One of the cuts are the lines which call up the User-Startup:

```
IF EXISTS S:User-Startup
    Execute S:User-Startup
ENDIF
```

These lines are removed from the Startup-Sequence, because they would interfere with the operation of MultiStart. The problems arises when you install a new program. Most programs like to add commands to the User-Startup file. In the process of this, the standard Amiga installer will check to ensure that the above three lines are present, and if not, will desire mightily to put them there. Usually you are informed of this state of affairs, (see Figure 1) and could opt not

to allow the installer to do this, but chances are the program will not work without the commands added to the User-Startup. The path of least resistance seems to be to let the installer have its way with your Startup-Sequence, then go back and manually remove the offending lines in you favorite text editor.

The pictures in this article are available in full-color on our web site at www.pimpub.com

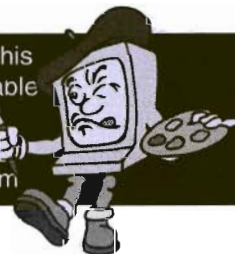


Figure 3: WBStartup Plus in Action

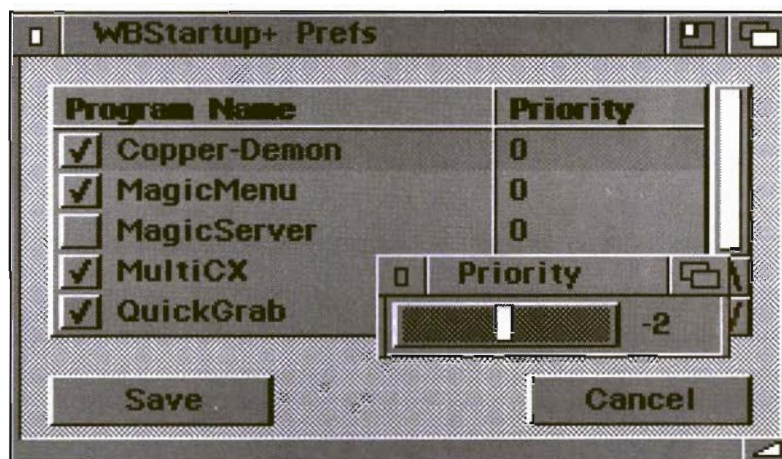


Figure 2: WBStartup Plus Prefs

One more MultiStart problem I've had may be some weird glitch with my system. I've brought the wee beastie to its knees many times in the course of researching this series. However, I did experience this problem using a clean OS install, so maybe it's a bug. MultiStart claims to be able to selectively disable programs in the WBStartup directory, as well as allow for multiple startup-Sequences. However, this refuses to work for me. All the WBStartup programs get launched, no matter which ones I

select via MultiStart. I seem to remember this working at one time, but then again...

WBStartupPlus
John Hughes
Post Card Ware
<http://wuarchive.wustl.edu/pub/aminet/util/boot/WBStartupPlus.lha>

At any rate, if MultiStart doesn't work for you, you might want to look at its WBStartupPlus. This program, by John Hughes, features a nice GUI, and the ability to selectively disable programs in the WBStartup drawer, and even choose the order (priority) in which they are run. See Figure 2 and 3.

As Always, you can contact me via Amazing Computing, or email:
dm05438@navix.net

Also, as part of an effort to learn HTML and Web Design, I am starting an archive of This Old Workbench articles. There's (still) not much there yet, but you can see it at:

<HTTP://www.geocities.com/SiliconValley/Hills/2359>

•AC•

(continued from page 27)

inclusion in the HotList of the Month. Send the info to any of my addresses above.

That's all for now. See you on line!

•AC•

Listing One

```
<!DOCTYPE HTML PUBLIC "-//IETF//DD HTML 3.2//EN">
<HTML>
<HEAD>
<TITLE>Where have you been?</TITLE>
<!-- From the November 1998 Amazing Computing -->
<body background="#FFFFFF" text="#B22222">
</HEAD>
<BODY>
<SCRIPT LANGUAGE = "JavaScript">
<!--
function diff(){
var offset = (where.amount.value);
offset = (0-offset);
window.history.go(offset);
}
document.write(window.history.length);
// -->
</SCRIPT>
<p>
Enter a number smaller than the number above <p>
<FORM NAME = "where">
<INPUT TYPE = "TEXT" NAME = "amount">
<p>
<INPUT TYPE = "BUTTON" VALUE = "Click to submit." onClick = "diff()";>
<INPUT TYPE = RESET VALUE = "Reset">
</FORM>
</BODY>
</HTML>
```

Audio on the Amiga

by Roger Angus



Recording Techniques

In this article I aim to take a look at the kinds of things that exist just beyond the limits of solely using an Amiga for audio, such as recording techniques, things like microphone placement, mixing techniques and how to take a Soundcraft desk apart and put it back together again. Well, okay, perhaps we will give the last one a miss, but these kinds of subjects can help anyone interested in music and audio in general to produce a better quality of output.

Perhaps the most significant reason why Amiga audio addicts haven't come to grips with these skills is, as a stock model, a basic A1200 has no audio sampling ability whatsoever and the output is restricted to a (by today's standards) cheap n' dirty 8-bit low-resolution output. The most popular upgrade route used to be a stereo 8-bit sampler plugged into the serial port backed up by a rudimentary sampling/tracker program. Often, to get a sample of even the most basic quality was an achievement.

These days, with more and more people upgrading to faster processors, bigger hard drives, more memory, etc. not to mention 16-bit sampling cards, Zorro slots and professional audio applications such as Samplitude, Audiolab 16, Soundprobe and the soon-to-be-released ProStation audio, the capacity for producing results of the highest order is there. We just need to

Tips and Techniques to get quality sound recording and a good original track.

know how to realize and utilize this capacity.

Perhaps the most obvious improvement that needs to be made is to the quality of the source to be recorded. It never used to matter if there was a little (or even a lot) of hiss or distortion from a source. It was expected that the sampler would match it crackle for crackle. Now, with the likes of the Delfina or Prelude card producing very little or no noise, the quality of what goes into the card is paramount. Most professional software now has, if not a dedicated denoiser, at least an approximation thereof, using eq to filter out hiss and rumbling. But, this is a poor substitute for taking the care to get a clean source in the first place.



Microphone Techniques

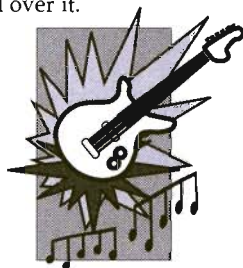
If the source is a microphone, one of the most obvious areas of loss of quality resides within the mic itself. A £10 (about \$16 US) job from your local electrical boutique will obviously not compare to a £3000 (\$4800 US) studio microphone, but the difference between a £150 or even a £100 mic and a £3000 is not too great compared to a £10 one.

A condenser microphone, such as an AKG C3000 or for a little more money one of the new Røde models, can be had for much less than a new graphics card or reasonable capacity hard drive and will deliver wonderful results. Perhaps the other problem area is that all mics will need some kind of preamplification. Added to this, all condenser mics will need a phantom power source though some models, such as AKG's C 1000 will provide it themselves by way of a battery inside. Another small source of delight is that some modern sampling cards will

provide an input with a preamplifier built-in.

Okay, with a decent microphone and preamplifier sorted out, how do you go about using it in anger? A big problem with vocals is that vocalists like to introduce external noise by handling the microphone. Solution: get a microphone stand and forcibly restrain the performer from executing Rod Stewartesque mic harassment by any means possible (a length of rope and a hard-backed chair usually does the trick)

Another problem is performers tend to get too close to the microphone, creating popping on the "P"s and "B"s and generating the kind of heavy breathing sounds usually associated with Barry White. Solution: tell them to back off (assuming an American accent and producing a gun of some sort often helps here) or failing that, buy or make a pop filter out of a small hoop-shaped object with a pair of your mum's tights stretched over it.



Electric Instruments

For electric guitars and basses, any number of techniques can be used. Either stick a microphone in front of the speaker cabinet and experiment with positioning it on or away from the speaker cone or D.I. (Direct Input) by feeding the instrument's output into a suitable preamp. This technique works well for bass and clean electric guitar. A distorted guitar sound sampled directly from the line output on the back of the amp will sound atrocious, coming over all buzzy and constipated. This sound can be of use with Nivana and Garbage having used it in the past, but most people avoid it like the plague and mic up a speaker instead.



Drums

Now for the tricky one. Getting a good drum sound scares the pants off even the best engineers with the best facilities. The problem is exacerbated on the Amiga as most samplers (with the exception or the no longer produced Sunrize line) only have two inputs. The most basic of microphone setups requires a minimum of 4 mics, bass drum, snare and two overhead for stereo. Ideally the four sources need to be recorded onto separate tracks so they can be mixed according to the rest of the instruments for a good balance between sounds. If this is not possible, 4 can be mixed into a stereo pair with even the cheapest of mixing desks and sampled into the Amiga in stereo. Failing that, miracles can be worked with only 1 or 2 mics for a big, if mushy, sound.

Finally

Having covered ways to get good quality sound into the Amiga, it only remains to say it pays to make sure that what comes out sounds just as good. This is especially true when mastering to CD where perhaps the only chance you will have to hear your finished masterpiece is through headphones or cheap multimedia speakers. Studio monitors are a luxury that often aren't needed. Another way to check the balance of a mix is to record your work and take it to other people's houses and listen to it on their stereos, checking if there is too much bass or not enough, if that solo actually needs to be that loud, etc.

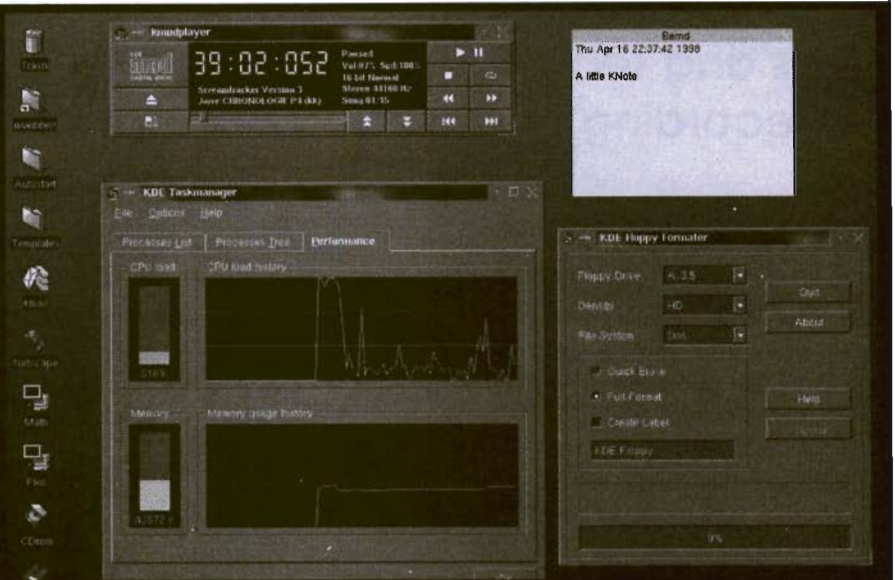
Hopefully, at least some of this article will apply to everyone sampling on the Amiga. Next month we will look at mixing and effects on our journey to find the perfect mix....

•AC•

Unix on the Amiga! Turn your Amiga into a powerful Unix workstation.

Part 6: A Return to System Administration.

By Antonello De Santis



This is kde, the new desktop environment for every Unix OS

Some more about System Administration

In the last article, I explained something about Unix system administration. But, as in all things administrative, there are still a few more aspects to cover.

Privileges and security

How does modifying privileges on files and directories affect a user's capability to work on the system? Let's start with files. You'll remember the 9 permission bits that set permissions on a system's resource:

```
(u)ser  (g)roup  (o)thers
1. rwx  2. rwx  3. rwx
```

The read bits tell if the file can be read, that is, if the content of a file can be accessed by a user. Reading the content of a file doesn't simply mean displaying it on the monitor with a program like cat or emacs. Reading can be accomplished even without you noticing it. For example, a Perl, Shell or Basic script is "read" by the language interpreter, but the content of the file doesn't appear on the screen. You only see the output of the program. If you

don't set the read bit, the script will not be executed by the interpreter and you would be prompted with an "access denied"!!

You must be very careful setting the permission bits of a file. There are many components influencing its behavior.

The write bits allow the user to modify and make the changes to a file permanent. For example, adding lines to a text file and saving the modifications or deleting a file from the hard drive. If the write bit is not enabled the latter operations cannot be accomplished.

Finally, the execute bits tell if a file can be executed or not. If you try to remove the execution privilege to a program like "more" or "emacs" and launch it, you will be prompted again with an "access denied". Privileges on files work very closely with privileges on directories, very often the permission bits of directories can alter the effect of operations on files.

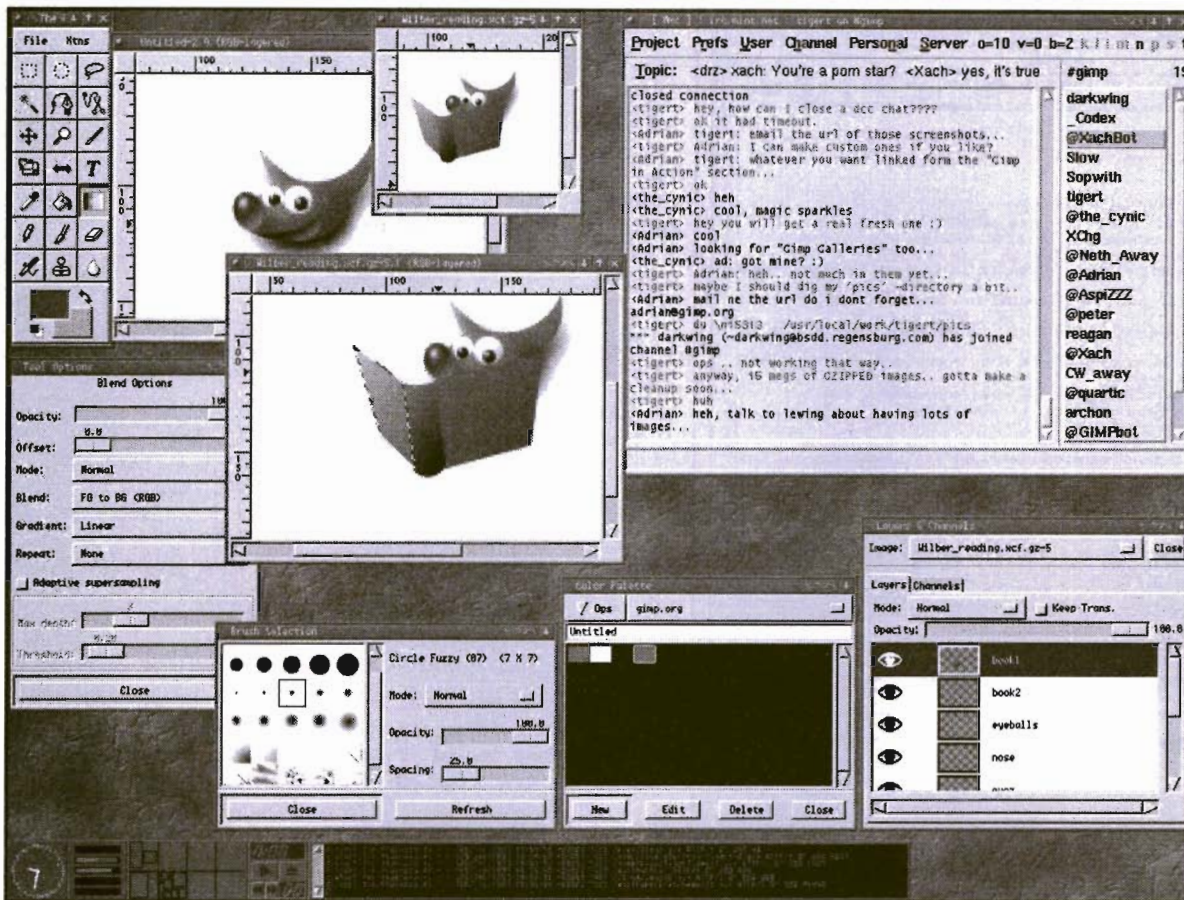
First of all let's see the meaning of directories' permission bits. The read bits of a directory allow us to see the content of a directory with a command

like "ls" or with a double pressure of the tab key, if you are using bash shell. The write bits give you the permission to delete the directory or modify its content. Finally, the execute bits allow you to cd to the directory or not.

Now we can examine the interactions between permission bits of files and directories. The most significant interaction is among the write bits of files and directories. If the write bit of a directory is not set, the operations you can accomplish on the files contained in that directory work as you may not expect.

Let "x" be a file in directory "temp". If directory "temp" has "not write" permission set, but file "x" has write permission set instead, what would you expect? Maybe you think that you can delete the file with a command like "rm x" since its write bit is set—wrong! Even if "x" has write permission set, it can't be deleted because directory "temp"'s write bit is not set.

If you delete a file, you modify the content of the directory it is in. In our example, this cannot be accomplished since "temp"'s write permission is



The image processing program for Unix: Gimp

turned off. If you tried to remove "x", you would be prompted with the usual "access denied". For the same reason you can't create a new file in the directory.

This behavior is due to the famous Unix inode, the heart of every Unix operating system's filesystem. You can actually delete file "x" anyway using a text editor and removing its content, the name of the file would always appear after an "ls" command though.

Also, the execute bit can have a behavior that you don't expect. The "x" bit on a directory tells if you can cd to that directory or not. Don't expect great security on your files by protect-

ing them by simply turning off the execute bit of the directory they are in. If someone knows the exact path of a file in your home directory, she can access that file, even if the execute bit of the directory is not set! The execute bit just allows you to cd to the directory or not, it doesn't prevent anyone from reading the content of the directory, the read bit has been made for that!

Managing hard drive space.

System administrators deal with a big problem to keep the system usable and efficient for every user. They must give each user some room on the hard drive so there is always enough space available for everybody. They can't allow a lone user to occupy 100MB of hard drive space leaving no more room for the others.

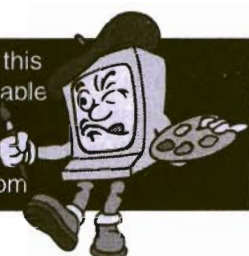
Unix provides system administrators with a set of programs to efficiently managing hard drive space:

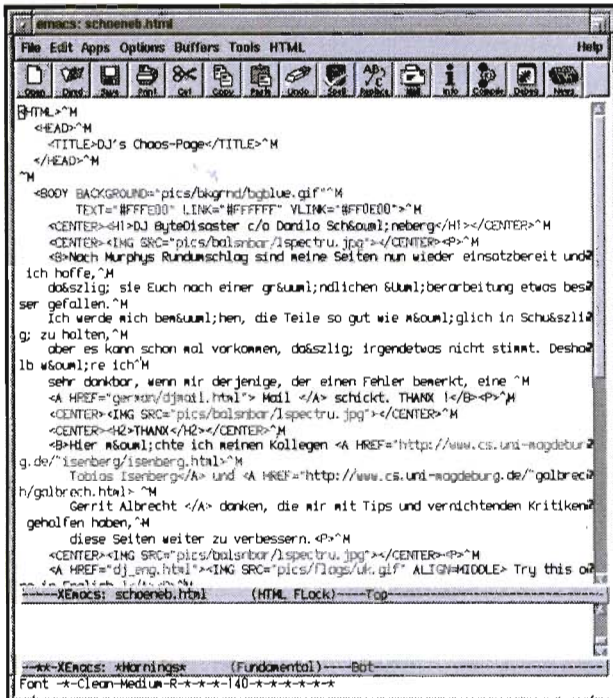
quota. These programs allow you to set a maximum quantity of space that every user or group can occupy on the hard drive. You can customize everything to your needs, in fact, you can assign a hard drive quota to every single user on the system.

You can, for example, assign 10MB to a user who is developing an important project, 500KB to a user who only needs to send mail, or you can give a fixed quota to every user belonging to a particular group, for example the group that is developing a new Unix compatible kernel. There are infinite possibilities.

Let's start examining how to turn on quotas. First of all, you have to modify your fstab file. To make quota available for a certain Unix partition, you have to add one or two options to the fourth field of the line relative to that partition. These two options are "userquota" and "groupquota". They inform the system that the selected

The pictures in this article are available in full-color on our web site at www.pimpub.com





Xemacs, surely the best text editor EVER developed

Listing 1

```
/dev/sd0a / ffs rw,userquota,groupquota 1 1
/dev/sd0b none swap sw 0 0
/dev/sd0i /usr ffs rw,userquota,groupquota 1 2
/dev/sd0e /ados ados ro 0 0
/dev/fd0b /floppy/ mados rw,noauto 0 0
```

Listing 2

Quotas for user bob:

```
/: blocks in use: 13, limits (soft = 10, hard = 20)
   inodes in use: 12, limits (soft = 0, hard = 0)
/usr: blocks in use: 0, limits (soft = 0, hard = 0)
   inodes in use: 0, limits (soft = 0, hard = 0)
```

Listing 3

```
Time units may be: days, hours, minutes, or seconds
Grace period before enforcing soft limits for users:
/: block grace period: 7 days, file grace period: 7 days
/usr: block grace period: 7 days, file grace period: 7 days
```

partition is suited to turn quota on for users and/or groups. You can, in fact, set quota both for a specified user and/or a whole group (see Listing 1).

The next step is modifying the "/etc/rc" configuration file. You need to add the following four lines:

```
echo -n 'checking quotas:'
quotacheck -aguv
echo 'done.'
quotaon -aguv
```

You may not need to add the above lines if you have a recent version of NetBSD installed. Check with the command "grep quota /etc/rc" to see if those lines are already in your "/etc/rc" configuration file.

The command "quotacheck" checks the specified partition for any previously set quota. Option "-a" tells the system to check quotas on every device in fstab. Options "-u" and "-g" respectively mean to check users quotas and groups quotas; they have effect only if you have specified one or both options userquota and groupquota for some devices in fstab. Finally, option "-v" prompts you with some information about what is happening.

The first time you run "quotacheck -aguv", two files will be created on the root of every filesystem for which quota is available: quota.user and quota.group. The command "quotaon -aguv" turns quota on for every device in fstab for which options userquota and groupquota have been specified. The meaning of options "-aguv" is the same as for quotacheck.

After running quotacheck for the first time, you can start giving quotas to users and groups, the command "edquota" will be used for that. The syntax to edit the quota of a user is: "edquota -u username". If you want to edit a group's quota, you have to run "edquota -g groupname" instead.

When you run edquota either for a user or a group, the editor vi will be invoked on a text file relative to that user's or group's quota (see Listing 2). As you can see, there are two lines for each partition for which quota is made available. In this case, quota is turned on for root (/) and usr (/usr) partition.

To modify the quota, you must set the soft and hard limits of blocks and inodes. The soft parameter specifies a "soft limit" for the user or group, that is, it can be exceeded for a certain amount of time. The hard parameter specifies a "hard limit" where the user or the group cannot exceed this limit. If they did, they would be prompted with a "hard limit exceeded" and the file would be automatically deleted.

You can set soft and hard limits both for blocks and inodes. The blocks limits define the maximum quantity of space a user can occupy on system's hard drive. You have to do some calculations to convert number of blocks into bytes, kbytes or mbytes. You have to know the number of bytes per block of your hard drive and then multiply this number by the number of blocks you want to assign to the user. If your hard drive had 512 bytes per block and you wanted to assign a 1MB hard limit to a user, you should do this operation:

1.048.576/512=2048 blocks

Easy, isn't it? If you don't want to assign any quota to a particular user or group, leave the soft and hard limits both to 0.

Questions?

You will probably be wondering what is an inode. For now, you can consider it as a file or a directory. So the inodes limits define the maximum number of files and directories a user can create.

There's another question, "How long can a user exceed his soft limit?" You must set this period of time also. To do this, you need to run `edquota` with option `-t`. For example: `"edquota -tu don"`. Editor `vi` will be launched again and you will be prompted with another text file, this time relative to user or group's "grace" period (see Listing 3).

There is a line for each partition for which quota is turned on. Each line is made up of two entries: grace period for blocks and grace period for files. The time unit can be: seconds, minutes, hours or days.

To set the grace period, you just have to write in the number of seconds, minutes, hours or days of grace you want to assign to the user or group. Once the user's grace period has expired, the soft limit automatically becomes the new hard limit.

There are still two quota commands to explain: `"repquota"` and `"quota"`. The command `"repquota"` is used to create a report about active quotas. Options available are: `-a`, `-u`, `-g`, `-v`. Option `"-a"` orders a report of all devices in `fstab` for which quota is turned on. Option `"-u"` and `"-g"` limit the report to users and groups respectively. Finally, option `"-v"` prompts you with some information about what is going on.

The last command, `"quota"`, simply allows every user to check his own quota. This helps users before they get into trouble by allowing them to check their demands before they are too high for their sector.

Conclusion.

Just a few words to complete this month's article. System security is a big and important topic. If you ever become system administrator of a big network, you will need to manage its

security daily. As you saw, there are many ways to grant system's safety, but even a little mistake can cause a big lack in security. Again, the only way to become skillful of Unix systems is by trying, trying, and trying more. You have a whole month to check every trick about security!

A very last note about the pictures in these pages. You can see three great pieces of software available for every Unix OS: Xemacs, Gimp and Kde. Xemacs is the great text editor by Richard Stallman. Gimp is a very good image processing program like Photoshop for Intel and Mac or Image FX and Photofenics for Amiga OS.

Finally, kde is a new very powerful desktop and window manager environment that could change the life of Unix-like operating systems. Till today the biggest drawback of Unix has been the ease of use for inexperienced users. Well, with kde, this problem is going to be brilliantly resolved. Kde provides a set of preferences programs that will

make your life much easier when you need to modify some configuration files of your OS.

Kde and Gimp are not available on NetBSD yet, but the source code is there on the Internet just waiting to be downloaded and compiled. Kde and Gimp are perfect Unix programs, they've been coded following the standard specifics of every Unix operating system, so with a simple recompilation of the source code, you can have them up and running on your NetBSD Amiga.

Attention:

Recently, I had the pleasure to travel to Canada. Unfortunately while there, I lost all my email. If you have emailed me between July 26 and August 26, please send your mail again. Just to be sure, if anyone has sent mail and has not received a response, please send your mail again. I regret any inconvenience this has caused.

•AC•

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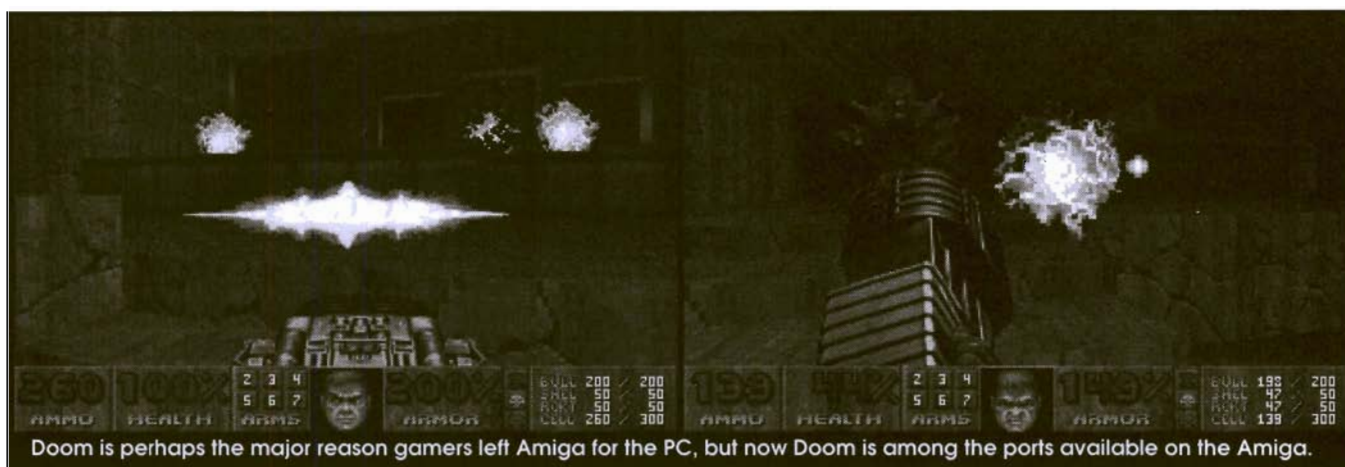
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PC Ports

The Amiga gaming scene has improved with an array of games whose coding has been ported to the Amiga.

By Jake Frederick

Believe it or not, there was actually a time when the Amiga was at the forefront of the gaming industry. Its custom chips and developer friendliness allowed the creation of a vast array of stunning games that dropped jaws and left others scrambling to catch up.

Somewhere along the way our beloved machine began to lose its ground and was trampled by a horde of power hungry PCs and consoles.

For months following its demise, Amiga gamers were subjected to a stagnant period of mediocrity, during which some ground breaking games appeared on other platforms. Thanks to a few talented programmers and some freely available source codes, we can finally enjoy a few of these classics on the Amiga. Better late than never!

Doom

The argument could be made that with the amount of Doom clones produced in the past few years, the Amiga doesn't need the real thing. But, after exploring the game's first few levels, it becomes obvious that none of them can quite match the intensity and gameplay of the original. The unique melding of a chilling atmosphere with the stress-relieving satisfaction of blowing things to bits was never quite perfected in any of the native Amiga offerings. At last we can experience the game that, according to some people, put the Amiga market in the struggling situation it's in today. Though there are several incarnations of Doom on the Amiga, we will deal with two of the most stable and polished, ADoom and DoomAttack.

ADoom

Peter McGavin's ADoom arose after the Linux source code was released to the public in late December '97. Since then, the port has had a number of major improvements and now contains all of the characteristics of the PC version as well as a few that allow it to surpass the original. For starters a rotating map that can be laid over the main screen, similar to the one in Alien Breed 3D 2, has been included.

Another welcome addition is the ability to change screen modes, allowing you to play Doom in any resolution, though anything higher than the standard 320x200 is quite slow. A number of other implementations such as graphics card support, improved music, CD-32 joypad support and networked gaming give ADoom all of the polish and configurability one could ask for. The port requires OS 3.0+ and 4 megs of fast RAM to run properly. To avoid "tiny-play-area" syndrome you will need at least a fast '030.

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Doom Attack

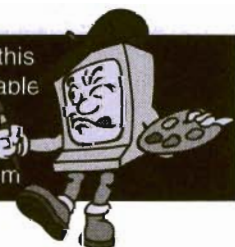
Doom Attack is currently at version .8 beta 4 and boasts a few characteristics that ADoom lacks. Although there are some novelty features like the optional crosshair, there are several that prove useful at times. For example, the capability to look up and down rather than just 360 degrees left or right, is helpful in certain situations such as peering over ledges to spot enemies. The ability to jump is more of a cheat than anything as it allows you to reach certain areas that were meant to be inaccessible; but it is a creative implementation none the less.

Because there are several optimized versions of Doom Attack, it appears to have a slight speed increase over ADoom, although it's not substantial enough to effect the gameplay. Despite all of this, Doom Attack lacks the stability and professionalism that ADoom displays. It crashed a few times and occasionally produced odd grey dots on my Workbench screen.

As it stands, Doom Attack will appeal to those who have already played Doom a bit and are looking for a few new twists to keep things interesting. ADoom will satisfy gamers craving a commercial port of the semi-legendary game, as it is every bit as sleek as the PC version.

Those of you who own a power PC card will be happy to know there are several versions of Doom compiled for your processor. I am not quite so fortunate, therefore I can't comment on the quality of these programs. I asked around and came up with a few benchmarks from the owner of a 160 MHz 603e. ADoom PPC ran at about 38 frames per second in the default screen mode

The pictures in this article are available in full-color on our web site at www.pimpub.com



Descent remains a vital stepping stone in the evolution of 3D engines.



With WolfenDoom and a set of wads for Doom 2, you can enjoy the nostalgic experience of roaming swastika adorned halls while mowing down Nazi soldier

(two sizes lower than full screen) and VDoom was slightly lower at 32 frames per second. Another port, Zha Doom, is available as well, but it is said to be substantially slower.

For the latest versions of any of the Doom ports as well as any other necessary files check out <http://linux.tc3net.com/doom>.

WolfenDoom

Before Doom there was Wolfenstein 3D. Essentially it was a 3D texture mapped version of the game Castle Wolfenstein which appeared on the C-64 quite some time ago. Both games put you in the shoes of a prisoner attempting to escape from a Nazi compound presumably during World War II.

While Wolf 3D's engine was quite basic, its first person perspective was relatively new to games of this genre. It left a huge impression on the industry, as the amount of texture-mapped action games available today can attest. Although the source code has been released by ID software, it has yet to be ported to the Amiga. Whether this is due to the sloppy programming, which is said to be extremely difficult to decipher in parts, or simply a case of the game's age is debatable. If you really must have Wolfenstein on your Amiga, there are three options.

The first requires access to an extremely fast machine and a decent PC emulator. Emulating even the



slowest PC on an Amiga can be a tedious process. I attempted to play Wolfenstein using PC-Task 4.3 on a 25 MHz '040 and ended up using a screen about two square inches with a game that was only remotely playable. Although it requires a powerful machine, this is the closest an Amiga user can come to the real thing.

If you are really feeling ambitious and have adequate programming skills you could download the source from <ftp://ftp.idsoftware.com/idstuff/source/wolfsrc.zip> and attempt to port it yourself. I'm sure all of the '020 owners out there who lack the horsepower to play Doom would certainly appreciate it.

The third option is probably the simplest and most feasible. With WolfenDoom and a set of wads for Doom 2, you can enjoy the nostalgic experience of roaming swastika adorned halls while mowing down Nazi soldiers as they curse you in German with a relatively small amount of hassle. The levels of Wolfenstein 3D have been meticulously recreated with all of the enemies, textures and sounds present. The only remnants of Doom are the weapon graphics which are close enough to those found in Wolfenstein to disregard. Ceiling and floor textures have been added, but because of the simplistic level design WolfenDoom is remarkably fast and

should run very nicely on a '030. You'll need a registered version of Doom II and one of the Doom ports mentioned above to play any of the wads which are available at <http://doomworld.com/wolfendoom>.

Descent

Though it didn't generate quite as much hype as Doom, Descent remains a vital stepping stone in the evolution of 3D engines. Like Quake, you are immersed in a world where everything, including enemies, is fully texture mapped 3D, albeit with a significantly lower level of detail. This combined with the plot of spaceship based rescue on the moon provides the necessary elements for unrestricted movement in any direction. With passageways in the floor and ceiling as well as the walls, it is easy to become disoriented and find yourself with no idea which way is up and which is down. After a few games, as Doom trickles out of your system, this confusion should fade.

There are two available ports, ADescent and Descent, which both require all of the .pig and .hog files from the registered PC Descent version 1.5. An '040 with 10 megs of RAM is recommended to achieve a decent frame rate. While there aren't any major distinctions between the two, a few aspects of each may appeal to a select group of people. Both offer a variety of options such as multiple screen modes, support for soundcards via AHI, optimization for various processors, and CybergrapX and Picasso96 support.



ADescent 0.7 adds support for analogue joysticks with multiple buttons, eliminating the cumbersome keyboard and mouse controls. More important is the included Virge compile of the game. The authors claim ADescent is the first game ever to support this Cybervision 64/3D chip which increases speed and enhances graphic quality.

Christian Sauer's port, simply titled Descent, has reached revision 0.57 2E I was unable to download the archive without unpacking corrupt files, but it apparently adds support for music in MIDI form, so it's unlikely that the average user will be able to take advantage of this. I am currently using version 0.5, a solid rendition that has a few minor things going for it such as 16-channel stereo sound and I-glasses support. While these features are interesting, they aren't significant enough to give it any edge over ADescent.

Both ports offer an adequate amount of entertainment and incorporate most of the important characteristics of the original Descent. ADescent was generally faster, even when redrawing static screens and menus, but was slightly less stable. Unless you have a Cybervision card, there is no reason not to download both and see which best suites your needs.

The pictures in this article are available in full-color on our web site at www.pimpub.com



ADescent is available from <http://www.informatik.uni-trier.de/CIP/tfrieden> and Descent from <http://www.geocities.com/siliconvalley/haven/7398>.

Abuse

Despite its many outstanding qualities, Abuse's release was relatively obscure compared to the other ported games previously mentioned. Since it appeared at a time when 2-dimensional, sideways scrollers were being left in the dust of the new breed of 3D blasters, it was most likely a victim of inopportune timing. This is a shame because, aside from its distinctively bland graphics, Abuse was a fairly good game that had several unique qualities.

Although platformers are the genre of gaming the Amiga has excelled in for years, Abuse is probably one of the most hardware intensive to date. You'll want a fairly large chunk of fast RAM (the minimum is about 4 megs but I highly recommend 16 or more) and at least an '040 before you even consider playing it.

Even with these specs, you will have to disable the lighting effects and cope with a few minor slowdowns when the screen gets busy. For the full experience, an '060 is essential, but, for those of us with lesser machines, the author has included a nice GUI to customize things.

Aside from the enormous amount of CPU power it consumes, Abuse's most obvious distinction from its rivals is its control system. Rather than the traditional joystick method, the game relies on the keyboard to move the character and the mouse to aim his weapon. This alters the gameplay tremendously and allows a great deal of flexibility. For example, if enemies become overwhelming, which they tend to do, you can flee the situation while spraying the area behind you with bullets, grenades or any of the other assorted firepower you may have collected. Very nice.

The potential for expansion is an aspect of the game into which the developers have obviously put a great deal of thought. A fairly straightforward level editor has been included, allowing you to layout backgrounds, objects, and enemies while adjusting their level of artificial intelligence. This, combined with the game's ability to implement entirely new graphics and game layouts and its networked deathmatch capabilities, provides Abuse with a longevity that very few games of this type have ever seen.

Download Abuse from <http://www.informatik.uni-trier.de/CIP/tfrieden>.

Hexxen and Heretic?

It seems very possible that the current trend of authors releasing their source codes could continue, allowing us to enjoy more intriguing games at bargain prices. It has been rumored that Hexxen and Heretic, both off shoots of the Doom engine, are next in line. Only time will tell, but, for now, there is plenty to take advantage of, so get downloading!

•AC•

Please Write to:
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 Fall River, MA 02722-2140

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MAE 98

Amicon's midwest show continues to grow!

The 1998 Midwest Amiga Exposition (October 2-4 in Columbus, Ohio) was the latest US event for the Amiga. Sponsored by Amicon, The Amiga Central Ohio Network user group, this event has seen dramatic growth in just two years.

This year's event started with seminars on Friday which has become a tradition for user group events around the country. Amicon delivered programs on web graphics, ARexx, Linux, business and product promotion, CD-ROMs, Amiga art, and more. Some seminars required a modest fee, while others were free, but all offered a rare opportunity for Amiga users to talk with professionals about techniques on the Amiga.

Saturday brought disappointment as the expected RJ Mical was not available for his speech. However, Bill McEwen of Amiga Inc. was on-hand to give some details on the new Amiga OS3.5 (please see the Amiga OS 3.5 article on page 12 of this issue). Bill continued to reassure the Amiga community that a great deal of work was in progress and that Amiga Inc. was aware of the industry's problems and was doing all they could to ease the situation. Mr. McEwen said he would stay until all questions had been answered and then spent more time answering questions from the floor than he had taken for his presentation. At one point, Mr. McEwen asked the audience to give him another chance to get things going faster and improve the Amiga market.

While Amicon was able to supply a much larger site for this year's event and attracted many more exhibitors, the attendance was estimated to be off as much as 50% from the year before. This was unfortunate because there were a lot of good opportunities to meet people and even buy Amiga equipment. Amicon and Pantheon Systems even announced the Amiga Game Zone. A complete booth with several Amiga computers linked together for head-to-head Amiga gaming.

Prizes are always a consideration at these shows and this event was no different. Two A1200s were given away as grand prizes, however, the best collectable at the show was donated by Nova Design and RJ Mical: RJ's personal Amiga 1000, signed by RJ and Carl Sassenrath. In addition, Nova Design, Finale Development, and other vendors offered copies of their products as door prizes.

As reported in our August issue, these shows do not survive on demonstrations and seminars alone. There were parties scheduled for both Friday and Saturday night.

Exhibitors

Image Architects

The Image Architects company was at MAE with their new product called FastFuel VTR Control & Clip recording software for the Amiga & Toaster/Flyer systems. The package uses quick, easy to



Randomize's Genesis was on display.

learn hot keys to operate almost any serial remote video tape device directly from the Amiga keyboard. FastFuel.Flyer works with both the 4.1 & 4.2 Toaster/Flyer software. It can operate a broad range of digital or analog VTR models with RS232 serial, RS422 serial or Lan-C type remote control.

FastFuel will run on almost any Amiga with OS 2.0 or better with a minimum of 1 meg RAM recommended and it can use either the native Amiga serial port or expansion serial cards. The program was created to provide a fast, simple and efficient solution to VTR control for Amiga Non-Linear Edit systems and Multimedia Production tools at an affordable price so the SRP is \$139.00 and is available now. *Image Architects, 601 Webster Drive, Decatur GA 30033-5434, Tel: 404-315-9026, Email: aaron@pd.org*

Pantheon Systems

Pantheon Systems showed off their internet services for businesses. Their packages include: Integration - connecting your web site to the applications that your company uses in house, Promotions - Pantheon Systems will consult with you on the way your site is marketed to the public, Collocation - as truly intensive commerce applications sometimes dictate the need for more concentrated resources they offer dedicated server placement and leasing, Graphic Design - take advantage of Pantheon Systems for graphics integration, advanced interface development, and the flexibility to create identifying motifs or use your existing one, Fast Hosting - Pantheon Systems guarantees a rate of 99% uptime and allows your company to alleviate the expense of a webmaster on site, and Administration - an administrator is at your disposal to update your web site, enhance



A disassembled render farm offered Amiga users a unique opportunity to purchase Amiga 2000s for a very reasonable price.

The pictures in this article are available in full-color on our web site at www.pimpub.com



Bill McEwen gave a presentation on the new Amiga 3.5 OS after the show on Saturday.



its effectiveness, and build on its applications.

Pantheon Systems, 6088 Albert Avenue, North Ridgeville OH 44039, <http://www.pantheonsys.com>

AmiTriX Development

AmiTriX Development showed three software products at the show. The first package allows you to network your Amigas using Amiga-Link and Envoy 2.0b. Features include: Network Interface Modules connect to the Amiga floppy port or pass-thru of most external drives, except for some HD drives with caching circuitry, Peer to Peer networking, chains up to 20 machines, works with AmigaLink, Envoy etc., GUI tools for Workbench and much more.

Secondly they had their AWeb-II v3.1. AWeb-II features: HTML 2/3.2/4.0 compliancy, supports JavaScript v1.1, URL & Frames pop up menus, Internal FTP and much more.

HTML-Heaven v2.1 makes html documentation creation a simple point / drag & click. It works with most ARexx compatible editors, and now has table / frame & color support. It also touts WYSIWYG display using ARexx and AWeb. For CDTV and A570 CD-ROM owners, AmiTriX offered a SCSI-TV™. This product is a hard disk interface for CDTV featuring a true DMA controller, auto-booting, ability to connect up to 7 standard SCSI devices and more.

AmiTriX Development, 5312 - 47 Street, Beaumont AB Canada T4X 1H9, Phone/Fax: 403-929-8459, Email: sales@amitrix.com, Web Site: www.amitrix.com

ICOA Announces Changes and Goals

The ICOA (Industry Council Open Amiga) steering committee announced their intention to refocus the ICOA. They have charted a new course in order to reorganize itself into a professional society. Their new focus will be on communications, resources, and issue relevant to developers. Their first step will be to establish a permanent ICOA

web site. As the current site was meant to be an intermediate step, the new site will serve as a resource to all developers whether they join or not. The site is located at <http://www.amiga.net> and will be initially active in the first weeks of October.

Future plans will be highly dependent upon developer support. Pending Amiga, Inc. participation they plan to release a quarterly newsletter and CD ROM. The focus of this newsletter will go beyond technical issues, including running a business, producing artwork and advertising. The included CD ROM will include a wide variety of subjects from code collections to catalogs of advertising and promotional products to help companies grow. ICOA asks you help to keep their new directions.

ICOA is available at <http://www.amiga.net>

WebLord

WebLord is a document assembly and WebSite construction power tool shown by RingLord Technologies. Written by Udo Schuermann, WebLord helps define and construct hierarchically organized multi-page documents. It constructs these documents from combinations of objects of the user's own definition. WebLord was designed to address the particular needs of individuals and organizations who maintain one or more sets of documents and need to maintain these in a unified style.

WebLord is not an HTML editor and it offers no GUI either as the author did not wish to limit its future growth because certain features cannot be made accessible through a GUI. WebLord costs \$24. It comes on a single 880k floppy disk and includes approximately 70 full-size pages of documentation complete with an eight page tutorial. It requires an Amiga with KS 2 + 300 KB free RAM, 500 KB free disk, 68000 (68020), HTML Browser, and Text Editor. Email: udo@ringlord.com, Web Site <http://ringlord.com/products/weblord>

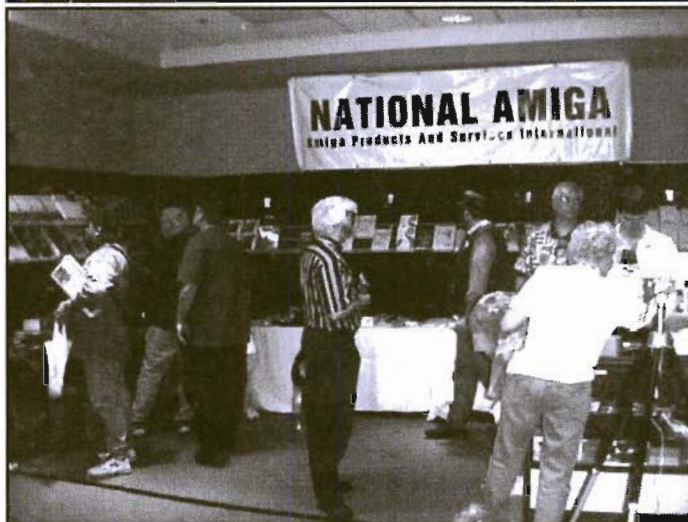
FWD Computing

FWD Computing was showing their huge supply of CD ROMs for the Amiga. Their catalog included software for emulation, graphics, games, application & tools, file & program collections, CD32 & CDTV CD ROMs, Floppy disk Amiga software, and sound programs. They also suggest that if you are looking for something and are having difficulty finding it that you contact them as they have small quantities of software that are not always seen in their catalogs or they may be able to get it for you.

FWD Computing, P O Box 17, Mexico IN 46958, Voice only: 765-473-8031 Tues-Thurs 1 to 7 PM, Fax only: 765-472-0783 anytime, Email: fdavis@iquest.net

Legendary was just one of several developers who were represented at MAE.





Dealers such as Columbus native, Compuquick, (top) and Canadian, National Amiga, (bottom) were on hand to provide a variety of products from vendors around the world.

WeemsWare

WeemsWare announced the release of their first commercial product called animouth. This product allows the user to create talking characters for any video. This real-time talking character animation tool generates lip synchronization using the Amiga's narrator.device, and the user's own IFF images, animbrushes and sounds. It allows the user to do fast pencil testing of characters for more traditional animation, teach the mechanics of mouth movement in character animation, use as Mouth Position input for 3D animation via ARexx and animate any voice you can digitize.

The minimum requirements include an Amiga OS 2.04 and up with 1 Meg Chip Ram, 68000 with suggested requirements of an Amiga OS 2.04 and up, 2Mega Chip Ram, additional Fast Ram, 68020 with 1 Meg hard drive space. Animouth includes narrator.device and translator.library files. It requires no external GUI Libraries (such as MUI or ClassAct) and supports these file formats: IFF_ILBM, IFF_8SVX,

IFF_ANIMbrush, and ASCII text
WeemsWare, 4190 Evergreen Road, Oxford
MD 21654, Tel: 410-226-0404, Email:
wbowie@weemsware.com, Web Site:
www.weemsware.com

Finale Development, Inc.

Showing three products was Finale Development, Inc. New York is an On-line News Client for the Amiga. New York dispenses with the hassles of reading and writing news postings. New York boasts hierarchical group management, integrated composition tools, configurable screen modes and fonts, super fast header parsing and sorting. Requirements include an Amiga OS 3.x with hard drive and 4 MB RAM recommended.

Digital Quill is a text editor for the Amiga. Digital Quill is a handy tool for routine text editing or programming. Quill does not require any external applications, gadgets or libraries so it can be used even on a stock Amiga.

Features include: keyboard control/program navigation, user definable speedbar, on-line help, word wrap and paragraph reforming, and much more. Quill requires an Amiga OS 2.1 or later with a hard drive and 2 MB RAM recommended.

Voodoo is a multimedia E-mail manager for the Amiga. This product is a powerful email client with integrated POP3, SMTP, PGP and mime attachment viewer. It also has multiple folders with user-configurable import rules, search functions, and address-book help organize your business contacts, friends and mailing lists.

Finale Development, Inc., P O Box 6905, West Palm Beach FL 33405, Tel: 203-235-7518, Web Site: www.finale-dev.com/

Randomize, Inc.

The Genesis Towerhawk is a completely expandable Zorro Based Amiga with speed and flexibility! It includes a 68060 50 MHz with 32 MB RAM optionally expandable to 128 MB, 5 Zorro II slots - Optionally upgradeable to Zorro III, 4.3 GB IDE hard disk, 32x IDE CD-Rom, MultiVision Flicker Fixer, AGA Graphics System, Video and Genlock capable, and more. The Genesis Towerhawk is \$2749.95 CDN, \$1899.95 US and an optional Fast SCSI Controller can be added to the system for \$134.95 CDN, \$94.95 US.

There is also a Power PC Genesis Towerhawk with a 603e 240 Mhz, Fast SCSI Controller built-in additional is \$969.95 CDN, \$669.95 US above the 060 machine. An optional 4.3 GB SCSI hard disk is an additional \$89.95 CDN, \$64.95 US and an optional 32x SCSI CD-Rom is an additional \$124.95 CDN, \$84.95 US. They can add Microcode's Fusion Mac Emulator for \$244.95 CDN, \$169.95 US.

Randomize was also showing their newest line of Amiga clothing. Just the thing for a special Amiga fan as the weather turns colder.

Genesis is a division of Randomize, Inc., R.R. #2 Tottenham, Ontario Canada L0G 1W0, 1 888 RANDOMIZE (1 888 726-3664), 905-939-8371, Fax: (905) 939-8745, sales@randomize.com, support@randomize.com, www.randomize.com.

Nova Design, Inc.

Both Kermit Woodall and Bob Fisher were on hand to introduce Nova's newest release, the ImageFX 3.2 upgrade. ImageFX 3.2 includes support for more BMP and JPEG image file subformats, support for images saved from the Brilliance paint program, and minor updates to the IMP batch processor for ImageFX. New ARexx commands have been added, a new control has been added to the Layer Manager, and for owners of pressure sensitive drawing tablets, ImageFX now supports pressure in the airbrush painting tool and more. ImageFX is available, worldwide, through your local Amiga dealer or via mail order at a suggested retail price of \$349.95 US. See Nova's web site for additional upgrade information.



AMIGA 99

The Gateway Computer Show

March 12,13 & 14 - Friday, Saturday & Sunday

The Gateway Computer Show is growing again ! That's right - this year's show will be even bigger than last year's. Continuing to bring you the best shows each year. More floor space, more vendors and more fun.

- o Three days (Friday, Saturday & Sunday) of seminars and classes.
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- o Special get-togethers.
- o The best door prizes.
- o Amiga 99 will be held at the Henry VIII Hotel, 4690 Lindbergh, St. Louis, MO. 63044
- o Only 5 minutes from the St. Louis airport. Free transportation to hotel from airport via hotel van.



The Gateway computer Show - Amiga 99© is produced by Amigan-St. Louis©
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ETC.

Amiga user groups were well represented by A.R.C.U.G. Of Indianapolis, Amicon, Amigan St. Louis, Amiga Atlanta, Cecil Amiga Users Group C.A.U.G., Cleveland Area Amiga Users Group, CUCUG, National Capital Amiga Users, North Coast Amiga Users, User Group Network, and the Tulsa Amiga Group. Other exhibitors included AEmail, Amazing Computing/Amiga, Amiga Informer, Asimware Innovations, Digital Arts, Digital Quill Graphics, ES Productions (Eric Schwartz), Legacy Maker, Nordic Global Inc., Prowave, Software Results Enterprises, Systems for Tomorrow, Solution Software, and SoftPartners Inc. Amiga dealers included Compuquick Media Center, Dans Deals, DVS Direct, National Amiga, and Worldwide Computers. As always, we attempt to credit everyone who contributed. If we have left someone out, please contact us with a fax at 508-675-6002 or through our web site at www.pimpub.com

As always, Amiga users got together, shared their triumphs and their concerns and appreciated their fellow Amigans a little more. See you at the next event!

•AC•

Show Your Preference!



Front (above), and Back (Right) of the special T-Shirt created by Amicon



Amicon wants everyone to STOP THE MADNESS

Amicon created the above Ts in XL only to support their user group and take a stand. Any like-minded Amigan can get a T direct from Amicon by visiting their web site at www.amicon.org/t-shirts.html. The 50/50 shirts are \$18 for US delivery, other countries should visit the website for more information.

Connecting Your Amiga To The Internet

Due to the increased demand for internet use of the Amiga, Amazing Computing contacted several dealers who advertised in this issue and asked if they could offer suggestions and possible packages for our readers. By press time, the three dealers below had answered our request.

As we promised these dealers, we have reprinted their suggestions and offers verbatim with no edits. The telephone numbers and contact information for each of these dealers is included.

Amazing Computing/Amiga has not charged these dealers any fees for this additional coverage. Our purpose was to provide as many different solutions to the internet as we received. However, if you do contact these dealers to utilize their suggested systems, please let them know that you discovered their offer in Amazing Computing/Amiga.



Compuquick Media Center

3758 Town & Country Road

Columbus, OH 43213

Tel/Fax: 614-235-1180

Compuquick Media Center is offering the following Internet packages to Amiga Users exclusively through *Amazing Computing/Amiga*.

External 56k baud rate modem with serial cable, Termite TCP and Ibrowse suitable for all Amiga computers - \$189.00.

Software Hut

Bolmar Industrial Park

991 South Bolmar St Units F & G

West Chester PA 19382

Tel: 610-701-6301

Fax: 610-701-6306

Email: softhut@erols.com

Following are some of the best packages we have found for connecting to the Internet. All of these packages will allow an Amiga to connect to any ISP (Internet Service Provider) in the country.

Package #1: Netconnect 2

Features 11 commercial programs worth over \$275.00 on

1 CD. It is selling for \$99.95. It incorporates the new

Genesis Wizard to get novices installed on the

Internet in minutes. Includes such programs as:

AmiTCP 4.6 - excellent TCPIP program

MicroDot II - Email and news reader

AMIRC - for realtime chat - best Amiga IRC client

Amtelnet - access remote computers around the world

Amterm - for BBS or serial connection for transferring files

Contact Manager - for web management, FTP servers, chant Channels, friends and users

Voyager-NG - Excellent Amiga Web Browser with SSL ordering, HTTP 1.1, AGA support, FTP and News support

AMFTP - Ultimate Amiga FTP client software

AMTALK - direct Amiga Chat software, leave messages, talk in realtime

Netinfo - nice utility to find your friends on the internet, ping servers to find the response speed, etc.

X-ARC - Amiga's answer to Win

Zip - automatically decodes LHA/LZX/ZIP files.

Connects with other programs in Netconnect

Full HTML documentation on CD for all programs

Package #2:

Termite TCP/AWeb II version 3 - Full TCP/browser combination featuring easy access and setup, excellent Amiga browser with SSL ordering, frames and Java capability. Also features HTML heaven for setting up your own web pages \$69.95

Package #3

Termite TCP/IBrowse 1.2 - Features the same excellent and easy to use TCP program with Ibrowse 1.2 also known for ease of use by beginners. Ibrowse supports Frames, Java and SSL ordering and includes Magic User Interface. Ability to open any Amiga Screen via any Amiga graphics card supporting CybergraphX. History list, bookmarks, sounds and animations are all included in this latest version. \$59.95

Upgrade Package 2 or 3 to include Miami/IBrowse or Miami/AWeb II version 3. Miami is a new TCP/IP protocol allowing use of new cable modems and ISDN modems. Also supports local area networks using Ethernet/Arcnet, no Sana II drivers required, dialup for multiple phone lines/access numbers add \$20.00 or \$89.95.

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How do I get my Amiga on the Internet?

You need the following to use the Internet with your Amiga:

1. Amiga OS 3.0 or higher. (3.1 upgrades are made for the A500/2000, A3000, A4000 and A1200).
2. 1MB CHIP memory and a minimum of 3-4 MB of FAST memory (to check on how much memory your Amiga has, click on the WorkBench screen and examine the numbers shown at the top. Values over 900,000 for Graphics memory indicate that you have a 1MB or larger Agnus chip. Values for OTHER memory indicate how much FAST memory you have).
3. A hard drive with a minimum of 10MB of free space, more is desirable for browser and email caches.
4. A 68020 or faster CPU (like the 030, 040, or 060) is desirable. Phase 5 makes very fast 060 accelerators for the A1200, 2000, 3000 and 4000.
5. A 28.8K or faster external modem. We sell the SupraExpress 56K external, the US Robotics Sportster 56K external and the US Robotics Voice FAX modem Pro external. These modems support the new V90 standard and work well with Amigas. The SupraExpress needs a 9-pin to 25-pin serial port adapter for the built-in cable and the Sportster and Voice FAX Modem Pro need a standard serial cable. NOTE: A high-speed serial port card for the A2000, A3000, A3000T, A4000 and A4000T will overcome the bottleneck in the Amiga serial port and allow one to get full speed from 28.8-56K modems. The IOBlix is a Zorro slot card offering four high-speed serial ports and two ECP/EPP bi-directional parallel ports.
6. A TCP-IP Stack and web browser. Miami 3.0 and Genesis, (an easily installed updated AmiTCP) are good choices. Miami and Voyager-NG support SSL (Secure Socket Layer) encryption for secure on-line ordering with your charge card at Web sites, like Safe Harbor's, that support SSL. AWeb II 3.1 and Voyager-NG are the current Web browser favorites. Both Miami

and Voyager-NG require MUI (Magic User Interface) a shareware program. The new NetConnect 2 CD is an all-in-one Internet solution. It's excellent selection of programs, includes Genesis, Voyager, MUI 3.8, AmiRC (Internet relay chat), Microdot-II (email/news client), AmTerm, NetInfo, X-ARC (Archiver/Unarchiver for ZIP, Lha, Lharc) and NC Controller.

7. An Internet provider. An Internet provider supplies the phone connection to the Internet. Avoid AOL as they only support Intel and Mac. Cost is typically \$19.95 per month for unlimited access. Make sure the phone number provided is a local call to avoid long distance charges.
8. While not a necessity, a graphics card like the Picasso IV is a very nice addition. Graphics cards display higher resolution and provide many more colors than the standard Amiga. This can eliminate color dithering so images appear more life-like and these cards can provide dramatic speed increases when displaying graphics images.
9. If you wish to send and receive email messages or join discussions in the large variety of newsgroups, you will need an email program and a newsgroup program. There are several email and newsgroup programs for the Amiga. Your Internet provider must also provide you with a unique email address before you can use email. Two commercial email programs are Air Mail Pro and Voodoo. New York is a newsgroup program that allows you to subscribe to various Internet newsgroups to read or submit messages. If you have an alternative method of accessing the Internet, there are shareware email and newsgroup readers available.

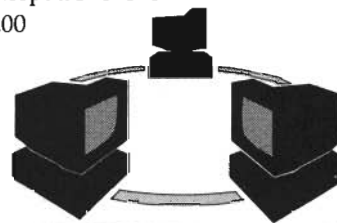
Bundles:

Amiga Internet Bundle #1: Includes US Robotics 56K external FAX modem, serial cable, NetConnect #2, and Dale Larson's Connect Your Amiga Book — everything you need except a Provider.

Safe Harbor's price: \$235.00

Amiga Internet Bundle #2: Includes US Robotics 56K external FAX modem, serial cable, AWeb II, Miami, and Dale Larson's Connect Your Amiga Book — everything you need except a Provider.

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Don't Delay! Did You Miss October?



VOLUME 13, Number 10: October, 1998

New Products & other neat stuff, Compuquick has a new A1200 special, don't miss AmigaFest 98 in Australia, Genesis Alpha, New Boing Mat, Siamese price cuts, A4000 shortage continues, two European Amiga mags halt production, and more!

Translate AVIs to Anims, AVI, QuickTime and more are not just alternative platform formats, they are also great resources. MainActor from Main Concepts offers Amiga artists an acceptable route to produce and build projects with Amigas, PCs and, eventually, Macs, by R. Shamms Mortier.

Aladdin4D: Cutting Torch Animation Project, Part 3: Surfacing the torch head by Dave Matthews.

LightROM#6 from Graphic Detail Inc., This four CD-ROM collection will please LightWave users on all platforms, by R. Shamms Mortier.

Etched in Stone, How to create an engraved effect with type, by Nick Cook.

This Old Workbench: Episode 22 Go for Launch, Your Amiga can cut through the jargon and launch your programs through a number of different methods. This month we will study Stefan Becker's ToolManager, by Dave Matthews.

On Line, New JavaScript tricks, and update information, by Rob Hays.

Unix on the Amiga, Part 5: NetBSD System Administration, by Antonello De Santis.

Amiga Atlanta Inc. and the IRS, The trials and errors of creating a non-profit Amiga user group, by Lamar Morgan.

The State of Amiga Sound, The support of Amiga users for the current products and those in production is essential to allow the Amiga to recapture its position, special report by Roger Angus.

Pyromania, Pyromania effects add hot looks to your images, by R. Shamms Mortier.

Wingnuts, Is it a great challenge or another name for frustration on the air?, by Jake Frederick.

Check Out The September Issue.



VOLUME 13, Number 9: September, 1998

New Products & other neat stuff, A4000 Tower Shortage, National's PCMCIA solution, Randomize's Amiga-PC network, & AmigaZone is sale priced!

ZAP! You're Cartoonized!, A hideous name for an interesting effect, by Nick Cook.

Cloud Castles, Data manipulation with Amiga software to create artistic representations and flights of fantasy for pure art and more, by R. Shamms Mortier.

Back to School with AMIGA, The Wheat Ridge Middle School of Denver uses the Amiga for art and more, Special report by R. Joe O'Brien.

Aladdin4D: Cutting Torch Animation Project, Part 2: Modeling the torch

head, by Dave Matthews.

This Old Workbench: Episode 21 Building the Perfect Workbench Part 4, Staying up to date on the latest versions can be tricky without VersionWB, best icons, improving the GUI and more, by Dave Matthews.

On Line, JavaScript: updating a previous script and learning lots of new tricks on the way, by Rob Hays.

Unix on the Amiga Part 4, Part 4: Understanding the different Unix commands and its unique file system, by Antonello De Santis

DPaint Cut-Paper Portraits, Use commands in DPaint to create your own caricatures for DTP and web use, by R. Shamms Mortier.

AmiWest '98, AmiWest, three days of seminars, speeches, prizes & more!

Hardware Project: Alternative Joy on the Amiga, Replace that old joystick with one of these new controllers, by George M. McDonald.

Genetic Species, In the world of complex 3D engines, getting a great game to market takes more than just faster graphics - and Genetic Species delivers that and more!, by Jake Frederick.

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Recent History!

Did You Miss The August Issue?



VOLUME 13, Number 8: August, 1998

New Products & other neat stuff, Cloanto has given Personal Paint 6.4 freely to the Amiga community, Amiga International has a new poster, a new Amiga Developer CD and more!

Moving Textures 200, A new CD for computer graphics artists, animators, videographers, and more who want to add realism to their work, by R. S. Mortier.

Titling F/x, There are always means to make it sharper, clearer, and deliver your message on more than one level, by R. Shamms Mortier.

BitMap Editor (BME) How-to, Hidden within PageStream is a winning utility for translating bitmap graphics into infinitely "repurposable" vector graphics, by R. Shamms Mortier.

On Line, An updated program for web page authoring, and who is looking at our web pages with JavaScript, by Rob Hays.

This Old Workbench: Episode 20 Building the Perfect Workbench Part 3, it is time to start the long and winding road toward customized Nirvana, by Dave Matthews.

Linux/Amiga: Adding a Hard Drive to Your Linux System, Always err on the side of caution, by Nick Cook.

Unix on the Amiga Part 3, Part 3: Software to make your Unix-based Amiga more efficient and productive by Antonello De Santis.

International Amiga '98 Exhibitors, A list of who was there and what they did!

The Greatest Show in Canada, A behind-the-scenes look from a vendor's unique perspective by an author who wished to remain unknown.

Heavy Metal - Creating Metallic Type, DTP tricks and tips "Amigaized", with DrawStudio, Pagestream 3.2, and ImageFX by Nick Cook.

"I don't get a single technical journal that covers as much important information as your February issue did, even in magazines 10 times as thick. There was news in there that had not been made stale by the plethora of news on the Web."

Steve Shireman

High Praise!

Did You Miss An Issue of AC?



Volume 13 Number 7 July, 1998

New Products & other neat stuff, Air Mail Pro v3.0, World News v1.0, PanCanvas: Motion Control for ImageFX, and more!

That Lived-in Look, Often, computer generated art just looks too clean! LightWave 5 offers almost an infinite variety of ways to "dirt-up" your detailed computer generated imagery, by R. Shamms Mortier.

Aladdin 4D: Cutting Torch Animation Project, Step 1: Creating an animation first requires a detailed knowledge of what the animation will do, what it will need, and how it will be used, by Dave Matthews.

Applying Textures to Fonts and Clip Art, Using textures to create just the look you want in your documents and art, by Nick Cook.

On Line, Catch the news on the latest versions of World News for newsgroup reading and Air Mail Pro for e-mail, by Rob Hays.

This Old Workbench: Episode 19 Building the Perfect Workbench Part 2, Real world perfection differs from user to user. Here are a few ideas on how you can maximize your Amiga to provide the perfection you want, by Dave Matthews.

Linux/Amiga: Do You Have an Account with Us? Part One: Learning the Linux hierarchy, key phrases, and setting up your accounts.

Unix on the Amiga Part 2, Installing the software, by Antonello De Santis.

Amiga Inc.'s Announcements, Amiga Inc. has an approved plan: Amiga Bridge, 4.0, Convergenceware, Amiga OS 5.0, and more!

World of Amiga LONDON 98, The latest news and releases from the world's second largest Amiga show.

Allan Havemose, Dr. Allan Havemose, Head of Development for Amiga Inc., is Amiga's next generation?

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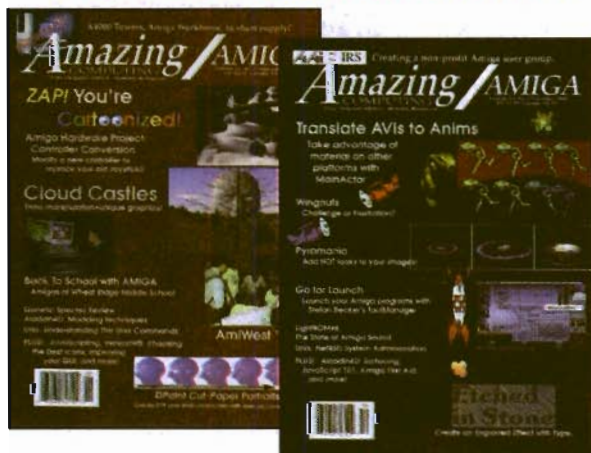
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